

Conference Proceedings



**Work Integrated Learning (WIL):
Responding to Challenges**

September 27 – October 1 2010

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Editorial

It is with pleasure that I present the full papers of the Australian Collaborative Education Network (ACEN) National conference.

Each paper represents a substantial contribution to the advancement of scholarship around work-integrated-learning in all its defined forms, such as cooperative education, service-learning, community engagement and participatory learning. Current trends in university practice are towards a greater focus on graduate employability and notions of work-readiness. Models of work-integrated-learning arguably respond to such demands with students developing across professional attributes, technical skills and critical agency through integrating the critical studies of the university and the practices of the worlds of work. As approaches such as these become more significant to the way universities respond to the demands of students and employers it is imperative that we build decisions and practices upon a sound body of research. This presents as one of the significant challenges affecting those that work in this space at universities.

Within this overarching challenge of research-based practice, current models of work-integrated-learning are challenged by the changing, and somewhat unknown, demands of students and employers. Within these proceedings there presents an interesting mix of papers attempting to unpack the experiences of students and the impact that their work-based learning experience has had on their broader views and approaches of learning; as well as those that consider the benefits, and challenges, of these experiences for employers. Work-integrated-learning is most often concluded, within these papers, as having mutual benefit for the student, university and employer.

Given that there is an emerging trend towards models of work-integrated-learning becoming standard practice across universities and that there is evidence for the benefit of such practice, there presents a final challenge; namely, the capacity to locate and properly allocate places for students. Within the proceedings there are presented papers that present case studies of practices which respond directly to this challenge. These papers have developed models which may be translated across various institutions.

Overall, there is clear evidence of an emerging body of knowledge around work-integrated-learning. Presented in these proceedings are 53 papers. The conference had 67 papers submitted for review, and these proceedings therefore represent an 83% success rate upon review. The conference overall had 121 presentations delivered from both refereed and non-refereed strands. These proceedings represent 44% of all presentations made at the conference.

I would also like to acknowledge the contribution made by **Michelle Badato** who ably assisted me in following up paper reviews, checking amendments, completing final edits of draft papers and compiling these proceedings. Without her assistance this task would have been far too great to have achieved in time.

Enjoy reading these proceedings and I hope that they contribute further to the advancement of ideas around work-integrated-learning and responding to the challenges of this space.



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Work Skill Development Framework: an innovative assessment for Work Integrated Learning

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The Work Skill Development Framework (Bandaranaike & Willison, 2009) was developed to inform and assess a student's progress in work-integrated learning (WIL) from conception to completion. The WSD is a tool that enables both academics and employers to monitor qualitatively and quantitatively the progress of students, and students to self assess their work skills. This paper presents a study on the use of the WSD in student placements at both the graduate and undergraduate level. The WSD makes explicit six facets of WIL: initiative, use of technology, establishing lifelong learning skills, reflecting on self management, skills in problem solving and applied communication. These six facets are articulated across five levels of autonomy, from highly guided where expectations are explained and modelled, to high levels of student determination. These facets were focussed on by placement students initially via input in a reflective journal, a progress report and a reflective essay. Subsequently, comprehensive interviews on each student's progress and achievement based on the principles of WSD were conducted, one with the student and the other with the employer. Over a six month period 27 students and 21 employers were interviewed using the WSD to frame discussions, and to generate a quantification of WIL measures for assessment. Student perceptions were compared and contrasted with the employer perceptions to assess progress during the placement. The research demonstrated that the WSD facets frequently enabled the employer to explore readily and meaningfully the performance of the student across a comprehensive range of nationally accredited employability skills. The findings include that students have a stronger sense of improvements in work skills after completing WIL, than do their employers, but both agree that there is improvement, and that this varies with the specific skill set being considered. While traditional assessment is focussed mostly on quantitative assessment, the WSD focuses on qualitative assessment as well, giving valuable feedback to the student and assessing future employability. Students were able to review, reflect on and so adjust their workplace engagement and receive critical feedback. It is an innovative, inclusive measure of performance that has the potential to be adopted in numerous disciplines.

Keywords: Assessment, Work Skills, Employability, Feedback, WIL

Introduction

The challenge of university teaching lies in providing a student with the line of best fit [employment] in a scattergram of assorted skills and knowledge. While WIL provides the conduit to search for this linearity, the Work Skills Development Framework (WSD) provides the basis of best fit.

The concept of learning in the workplace or WIL, is a long established practice where students engage in learning practices that lead to the marriage [and or divorce] of theory with practice. Reflection and debriefing on the placement is an integral component of student learning. The WSD is an innovative conceptual tool which integrates key employability skills and graduate attributes into WIL. It can be used effectively as a qualitative and quantitative measure of assessment in the workplace benefitting both student and employer.

The framework was developed on the basis of research literature, institutional reports and interviews with potential employers and past graduates. The WSD was developed as an assessment tool in 2009 to mirror the concepts and philosophy of the Research Skills Development Framework (RSD) of Willison and O'Regon (2006). While it aligns with the structure of the RSD, it also

provides a platform to have seamless development from research skills to graduate attributes and employment related skills.

The WSD is embedded in the assessment structure of *Professional Placement*, a WIL oriented subject, offered in the School of Earth and Environmental Science at James Cook University, Townsville, to both undergraduates and post graduates. Students enrolled in this subject are mainly from the disciplines of environmental science, geology, GIS and urban planning. While post graduates undertake an eight weeks placement, undergraduates complete a six weeks placement either as a full time or part time placement. Students are prepared for this course through course components in their undergraduate/graduate degrees, including reflective writing, teamwork application etc and also briefed individually by the course coordinator prior to commencing the placement. Communication is maintained throughout the placement through their reflective diary entries, progress reports and e-communication. The placement is either an independent project assigned for the duration of the placement or more often a component of a project in place. The course is available to different disciplines within the School of Earth and Environmental Science with students commencing their placements in any one of the 12 study periods throughout the year, and hence the individual and customised briefing sessions.

The WSD has the advantage in that it is adaptable to evaluate different types of WIL related assessment. For example in *Professional Placement*, students were asked to reflect and apply the six facets of work to their daily Journal writing, Reflective Essay and the Progress Report. In addition, the Interview assessment was based on the WSD. In this way there was greater uniformity and understanding and application of the WSD concepts among students and more effective feedback made possible.

The value of WIL assessment has been acknowledged for many years as for example, Boud and Falchikov (2005) identified that assessment must prepare learners for a lifetime of learning and encourage students to be “*active agents in their own learning*”. Newmann & Associates (1996) stated:

Authentic (WIL) assessment involves students being expected to organise information, consider alternatives, demonstrate knowledge of disciplinary content and processes, perform elaborate communication, and solve problems connected to the world beyond the classroom

WIL assessment commonly incorporates the eight employability skills listed by the Department of Education, Science and Training (2006) - Communication, Teamwork, Problem Solving, Initiative and Enterprise, Planning and Organising, Self-Management, Learning, Technology.

WIL assessment is also inclusive of graduate attributes. A recent ALTC report acknowledges their role in lifelong learning as:

Generic graduate attributes are the qualities, skills and understandings a university community agrees its students should develop during their time with the institution. These attributes include but go beyond the disciplinary expertise or technical knowledge that has traditionally formed the core of most university courses. They are qualities that also prepare graduates as agents of social good in an unknown future (Barrie et al, 2009).

Others like Boles et al (2005) trialled the use of Bloom’s taxonomy to inform WIL assessment so that it “involves facilitating a change in the students’ position from detached observers to involved performers and active learners”

The value of a WIL assessment lies in the recognition and accreditation of life-engaged learning outside of the classroom; the search for knowledge outcomes from university teaching, together with the skills and knowledge required to operate in public and private enterprise.

The WSD designed as it is for WIL assessment, is built on all of the above – employability skills, graduate attributes and Bloom’s taxonomy to combine qualitative and quantitative measures and achieve the desired WIL learning outcomes. The challenge is to devise a measure of assessment that can adequately reflect employer objectives and that of university learning outcomes as a single measure.

The WSD is unique in that it is a conceptual measure that can be used to monitor the progress of a student over time in WIL using a linear scale. While the framework is used mainly as a qualitative measure it can also be quantified. The value of WSD lies in its ability to satisfy employer outcomes, consolidate graduate attribute outcomes and contribute to student learning outcomes. As Doel (2008) states: “if students themselves are not brought to an awareness of their own progress and abilities ... then a real opportunity is lost for them to benefit fully from placement experience”.

Rationale

The aim of this paper is to document the trial and evaluations of an innovative marking framework to assess WIL outcomes for students in Environmental Science, Geology and Planning at both the undergraduate and post graduate levels.

A secondary aim is to illustrate the application of the WSD framework for WIL assessment.

The expected outcomes anticipated initially in using the WSD framework were:

- To enhance student learning outcomes from the reflective use and understanding of WSD concepts
- To bridge the gap between theoretical learning at universities with that of practical skills required in the workplace
- To use assessment outcomes from WSD to evaluate students’ experiences and inform curriculum change and improve WIL outcomes
- To road test a comprehensive set of work skills that are measurable both qualitatively and quantitatively through time

Methodology

As noted above the WSD makes explicit six facets of WIL which incorporate both DEST employability skills and mainstream graduate attributes – Table 1.

Table 1: Facets of Work and Skill Requirements (WSD) Explained

Facet of Work	WSD Cell Description	Action Verb	Example of Work Skill
Initiative	Student establishes role and adapts	Inquire Focus Locate	Enthusiastic Querying
Technology	Student applies technology to find and generate information/data	Select Manage Innovate	Identifying Translating
Learning	Student critically evaluates their role and objectives to establish lifelong learning skills	Interpret Aspire Change	Projecting Understanding
Self Management	Student reflects and self manages time and information	Plan Choose Judge	Organising Evaluating
Problem Solving	Student synthesises and analyses to create solutions	Define Test Reason	Distinguishing Investigating
Communication	Student understands self and others through interpersonal communication and teamwork	Listen Network Negotiate	Interpreting Consulting

These WSD facets need to be interpreted in the context of the discipline – for example the context in which technology is used will vary between a geologist, an environmental scientist and an urban planner. In this research geologists favoured the use of field technology, planners mainly documents and IT tools and environmental scientists a mixture. It is a generic framework that requires extra descriptors within each cell to explain the discipline appropriate expectations in work skills at each Level of Autonomy.

Bloom et al (1956) used similar levels of progression when he classified educational goals to identify thought processes at six different levels of cognitive ability. These were from the simple recall of knowledge to the higher level ability of analysis, synthesis and evaluation. Others like Dreyfus (1985) and Daley (1999) indicated that professionals progress through a developmental continuum in which they move from novice to experts.

The WSD parallels this in a student’s progression through the Levels of Autonomy. The move from the time the student enters the placement (before) to the time when the student completes (after) the placement is a move from highly guided where expectations are explained and modelled, to high levels of student determination (Table 2).

In the WSD the developmental continuum is applicable to all skill facets and therefore the achieved level of Autonomy may vary between one facets and another for the same student thus giving the student a more comprehensive assessment of his individual work skills. Also the student was able to assess the change or the degree of movement before and after the placement for each of the work facets. Employers likewise were able to assign a particular Level of Autonomy to a student when they commenced and when they completed the placement.

Table 2: Level of Student Autonomy (WSD) Explained

Level of Student Autonomy	WSD Cell Description	Example from COMMUNICATION¹
Level 1	Student requires a high degree of structure and guidance	Student requires highly structured guidelines to communicate information
Level 2	Student works with less structure/guidance/supervision	Student requires some degree of guidance to understand individual role and communicate within the team
Level 3	Student works independently and within provided guidelines	Student demonstrates confidence and assertiveness in communicating information
Level 4	Student works innovatively with limited guidelines	Student communicates independently and competently showing high degree of understanding of workplace culture and professional ethics
Level 5	Student works within self-determined guidelines appropriate to the context	Student negotiates and asserts their own values while respecting the contribution of others in communicating information

¹ The full WSD Table can be accessed in Appendix I

The Interview, conducted separately for the students and the employer, assessed the Level of Autonomy for each of the six work skills. Five statements reflecting the five levels of autonomy were given to the interviewee to identify the student position before and after the placement. These statements are listed in Table 3.

Table 3: Before and After Identification on WSD Statements

Facet of Work	WSD associated Statement
Initiative	<p>Required high degree of guidance to adapt to Role</p> <p>Was able to identify Role with some degree of guidance</p> <p>Adapted to Role independently, with no guidance</p> <p>Adapted to role easily and fulfilled requirements</p> <p>Identified future goals & projects while fulfilling original requirements</p>
Technology	<p>Used basic technology with high degree of guidance to find & generate information</p> <p>Used technology with some degree of guidance to find & generate information</p> <p>Used technology independently to find & generate a range of information</p> <p>Showed complete understanding and mastery in choice of technology right from the beginning</p> <p>Showed a high degree of sensitivity in the application of media & technology to generate information</p>
Learning	<p>Evaluates information at a minimum level in understanding his role</p> <p>Evaluates information with some degree of guidance to generate knowledge</p> <p>Critically evaluates information to match theoretical & practical knowledge</p> <p>Critically evaluates information & fills gaps to generate knowledge</p> <p>Critically evaluates & uses knowledge to generate lifelong learning skills</p>
Self Management	<p>Used simple reflective practices to organise information and establish role</p> <p>Used existing structures of reflective practices to master methods and practices</p> <p>Used own reflective practices to evaluate and monitor performance</p> <p>Used reflective practices to deliver clear projects and goals</p> <p>Used reflective practice to articulate vision, goals & innovative strategies</p>
Problem Solving	<p>Applied a simple structure to understand existing solutions</p> <p>Applied a structured format to synthesise & analyse existing data & knowledge</p> <p>Worked independently to synthesise & analyse a range of resources</p> <p>Applied critical thinking and worked collaboratively to produce innovative solutions</p> <p>Applied sophisticated critical thinking and analysis to initiate change & extrapolate outcomes</p>
Communication	<p>Required highly structured guidelines to communicate information</p> <p>Required some degree of guidance to understand role and communicate with others</p> <p>Demonstrated confidence and assertiveness in communicating information</p> <p>Communicated independently showing high degree of understanding of workplace culture & professional ethics</p> <p>In communicating information, student negotiates & asserts his own values while respecting the contribution of others</p>

The Interviews were designed to extract maximum information on the student's engagement in WIL. While each Work Skill was rated on the statements given above, at the beginning and completion of the placement, these answers were then checked using surrogate questions. For example in Communication there were questions related to the student's role as a team member, the challenges in working with diverse employees, manner of solving problems, engaging in speaking,

listening, negotiating, empathising, sharing, persuading etc, and these responses checked against their ratings identified on the format in Table 3. The responses were thus filtered for any contradictions in their feedback and subject to further questioning during the interview. There were total of 44 questions in the student interview and a total of 28 in the employer interview

Results

This section highlights the use of the WSD to monitor the progress of a student through the placement and assesses both qualitatively and quantitatively the changes that took place between commencement and conclusion. A change of 1 point level is a substantial change, as for example a move from level 1 to 2 implies the student now is more independent and works with less guidance and structure. It must be noted, however, that the changes in the Levels of Autonomy recorded in this research are ‘perceived’ changes, both from the students’ perspective and from the employers’ perspective. Both perspectives together, coupled with specific examples provided by employers in interviews and students in reflections, provide a triangulated data that gives a basis for substantial analysis.

In the analysis, facets of work are referred to by the title assigned to them in the WSD framework as Initiative, Technology, Learning, Self Management, Problem Solving and Communication. The results are first discussed as overall changes for the sub-group (students, employers), within each facet and then as perceived changes by each student for individual work facets, followed by Other useful outcomes of WSD.

Group Perceived Change

Responses from all Students [N=27] and Employers [N= 21] for each facet of work were averaged to assess the perceived progress in Levels of Autonomy for each sub-group. A considerable difference in judgement between employers and students was observed in Initiative, Technology, Learning and Self Management, with a lesser variation in judgement in Problem Solving and Communication (Figure 1).

Table 4 gives the average Levels of Autonomy perceived by students in each of the facets of work, before and after the placement. For example in Initiative, students perceived an average Autonomy Level of 2.1 Before commencement of placement and an average Level of 3.7 after completion, giving a change of 1.6 Levels. In comparison, employers perceived students commenced at an average Level of 2.5 and completed at an average of 3.6, giving a smaller change of 1.1 Levels.

Similar differences between students and employers in their perceived Levels of Autonomy were observed in Technology, Learning and Self Management [ranging from 0.6 to 0.5] with Problem Solving and Communication showing very little difference [0.2 to 0.1] between student and employer perceptions (Figure 1).

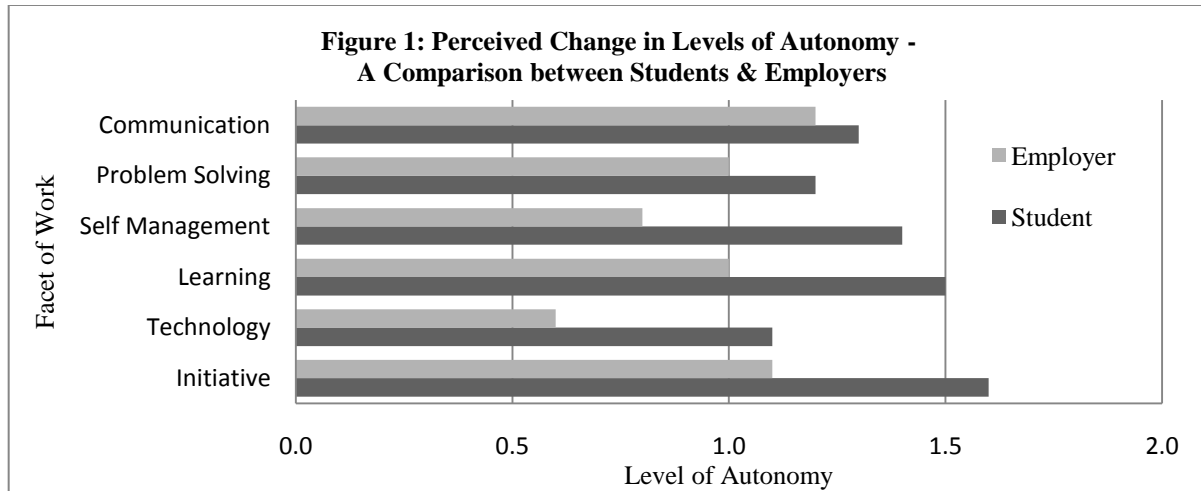


Table 4: Average Levels of Student Autonomy: Before and After the Placement

		Initiative	Technology	Learning	Self Management	Problem Solving	Communication
Student	Before	2.1	2.6	2.3	2.2	2.3	2.6
	After	3.7	3.7	3.8	3.6	3.5	3.9
	Change	1.6	1.1	1.5	1.4	1.2	1.3
Employer	Before	2.5	2.5	2.5	2.4	2.5	2.4
	After	3.6	3.1	3.5	3.2	3.5	3.6
	Change	1.1	0.6	1.0	0.8	1.0	1.2

Both students and employers perceived the change in the level of autonomy in Technology to be lower (1.1 and 0.6 respectively) than in other skills.

A paired sample t-test was conducted to assess the significance of perceived changes before and after placement by students and employers. The result revealed that the perceived changes in the Levels of Autonomy across all facets of work between commencement and completion of placement, was statistically significant ($p < 0.05$) for both students and employers (Table 5). Therefore it can be inferred that student work skills improved with time during the placements.

**Table 5: Perceived Changes in Levels of Autonomy [Before and After Placement]
Paired samples test statistics**

Facet of Work	Mean		Variance		t-statistic		Significance	
	student	employer	student	employer	student	employer	student	employer
Initiative	3.6	3.6	0.9	0.5	6.6	3.5	0.00	0.00
Technology	3.8	3.1	0.7	0.6	3.9	2.4	0.00	0.03
Learning	3.7	3.5	0.6	0.4	6.8	3.8	0.00	0.00
Self Management	3.6	3.1	0.7	0.7	3.7	2.6	0.00	0.01
Problem Solving	3.4	3.6	0.7	0.3	4.7	4.3	0.00	0.00
Communication	4.0	3.8	0.3	0.5	6.2	4.5	0.00	0.00

Individual Perceived Change

Ideally students engage in WIL to apply their theoretical knowledge to the work place with the expected positive outcomes of improving their practical understanding in the process. This analysis focuses on individual student perceptions on the progress (change) they made during the placement.

Initiative is the degree of motivation and negotiation a student expresses when engaging in the workforce. It measures how motivated a student is in taking on the placement and how well the student understands and adapts to the role.

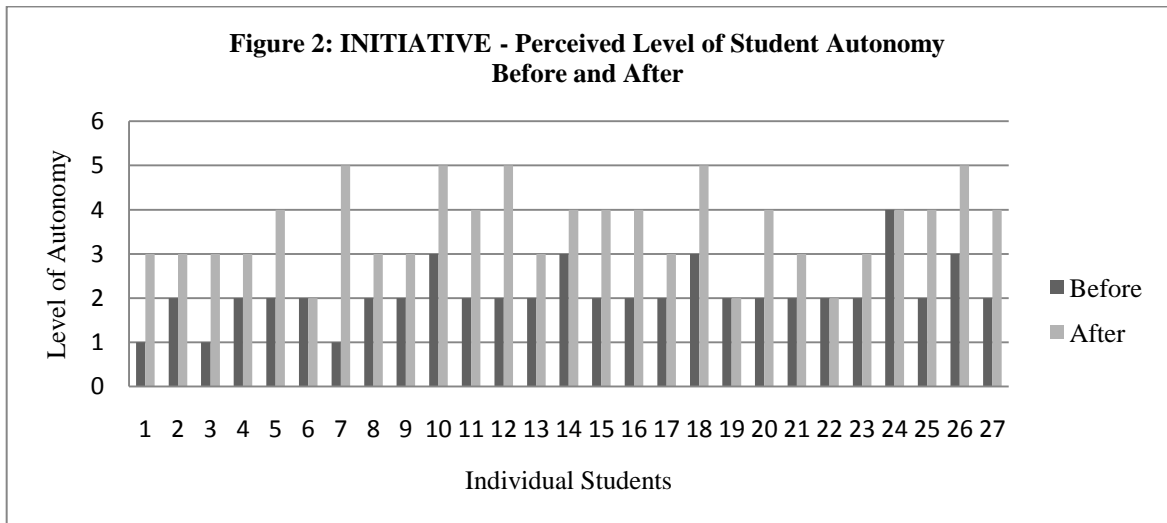
Some typical comments when establishing themselves in the placement were:

- [a] At first I just watched, listened and learned as much as I could. I was reading ... to get a feel for what I was getting into and what would be required of me in the long term ... the more I did this, the more I was starting to form a solid “role” in the company.
- [b] Despite the initial exhilaration and certain wonderment at being surrounded by experts and individuals ... I would also come to observe and experience the realities and frustrations of everyday work within a government department.

Initiative at times was restricted owing to time constraints, conflict between university and placement demands and the student being unable to function at optimum levels. I am finding it hard to concentrate on work (placement) as I have a heap of assignments to do. I can't help but feel that if I had got a placement earlier that it would have been better for me, not only to learn but also to reduce my work load.

At level 1 the student ‘requires a high degree of guidance to identify and adapt to the placement’. At level 5 the student is able to identify ‘future goals and project while fulfilling original requirements’.

Overall a massive 89% (N=24) indicated a high degree of motivation between the time they took on the placement and completed it. Only 11% (N=3) indicated there had been no change in their motivation before and after the placement. For example, students 6 demonstrated no perceived change in Initiative, whereas student 7 perceived that there was a change from level 1 when he commenced placement to level 5 when he completed (Fig.2).



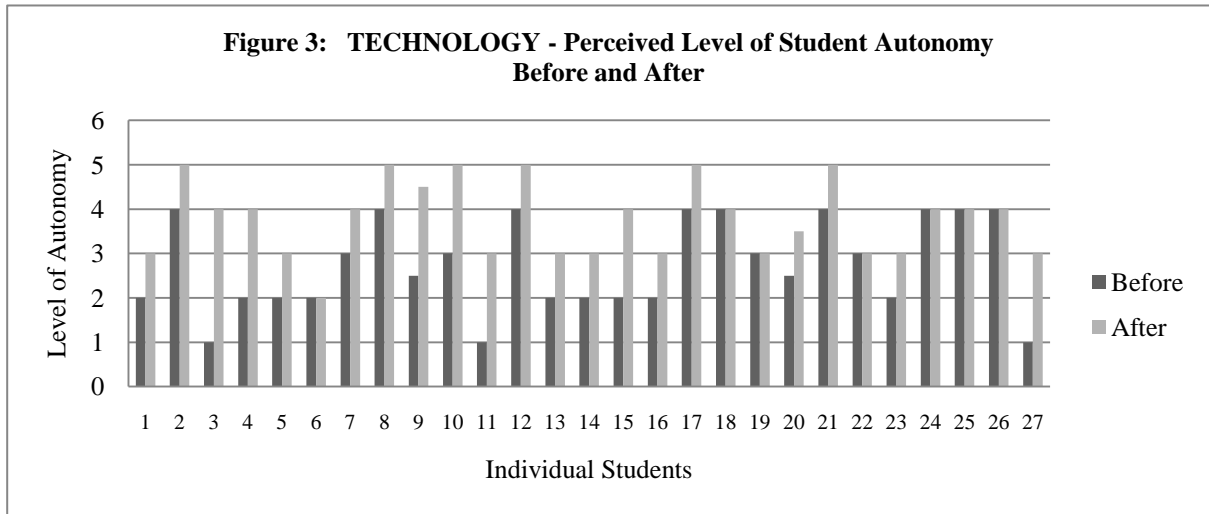
Technology is the student finding and applying specific skills to select, manage and innovate within the workplace. This will obviously vary across disciplines and industry structure. Students were expected to reflect on how well they adapted to the use of technology in their given role. When questioned on the adequacy of their technical competence in the workplace, typical responses were:

Other than computing skills, almost useless. The meters we used were all far more advanced in the workplace. I had never even heard of, let alone seen a portable PID/FID and I was being taught how to service and calibrate it.

Initially a lot of things learnt very useful. Some things ... no idea like learning how to calculate sewerage depths ... Took only a few days because user friendly. First awed but then moved on. Others responded they had to adapt their existing skills to workplace demands as the following student quoted:

My existing knowledge and understanding of these programs enabled me to have a basic understanding of how to utilise the new programs within my job.

A student who operates at level 1 in Technology will ‘use basic technology with a high degree of guidance to find and generate information/data’. At level 5 the student ‘shows a high degree of sensitivity in the application of technology to generate information/data’.



Student responses indicated that Technology reflected the lowest change in the Level of Autonomy between commencement and completion of placement. The percentage change was only 44% compared with 76% for Initiative.

Even though approximately one fourth of the students [26%] indicated there had been no change in their progress with Technology, the balance three fourths perceived they had achieved some degree of improvement in their Technological Skills during the placement, with 6 students perceiving they were operating at the most proficient level 5.

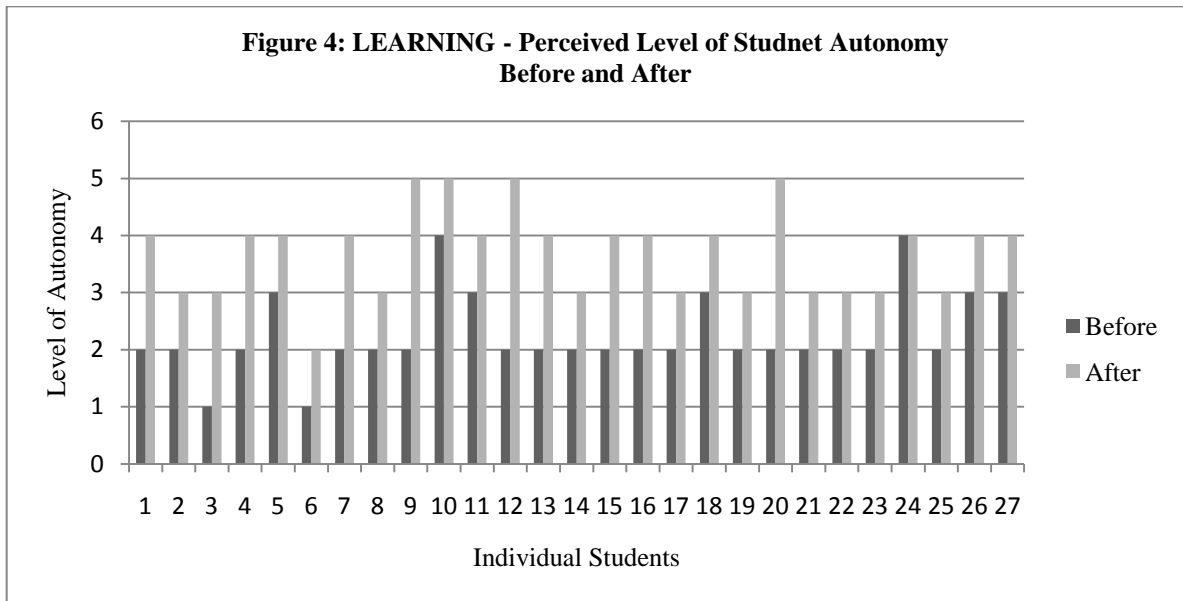
Learning refers to a measure of how well the students articulated their visions /goal and able to understand and apply that learning to future goals. The students were expected to think on how well they critically reflected on their role and objectives to establish lifelong learning skills.

A student operating at Level 1 will ‘evaluate information at a minimum level to understand their role through to level 5 where a student ‘critically evaluates and uses knowledge to generate lifelong learning skills’. This was one of the most difficult facets for students to comprehend and this became evident in the student and employer responses. Examples from different employer and student:

Employer: ... (He) understood the science based environment, but not the public service environment”

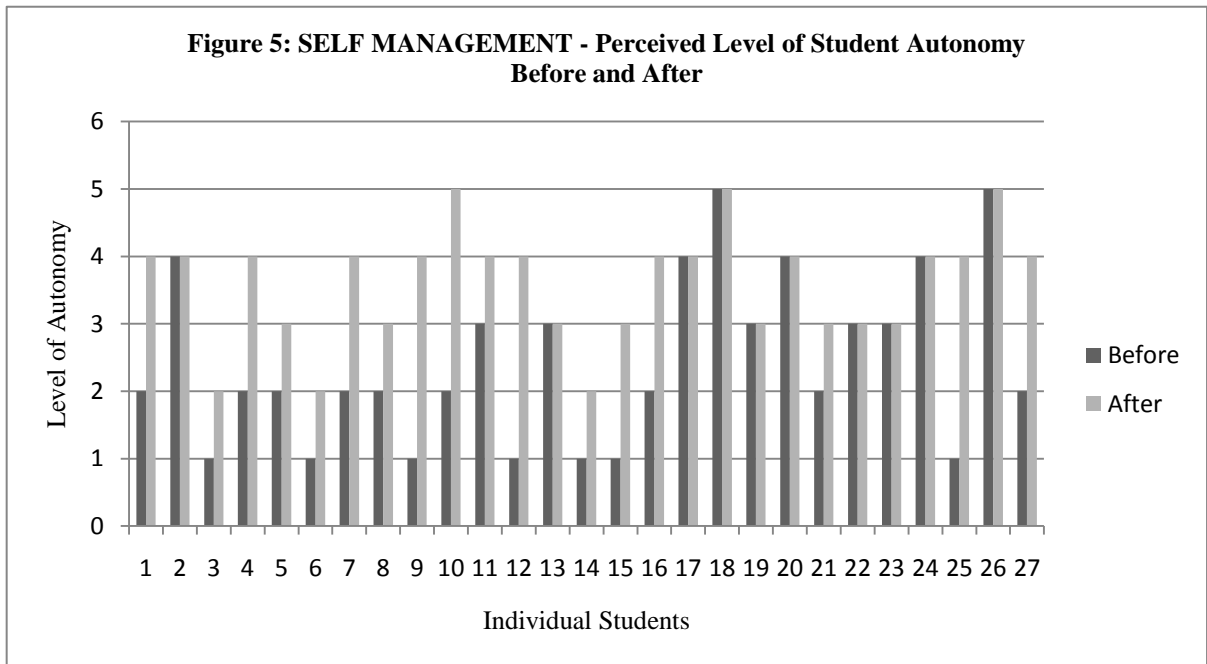
Student: Uni had prepared me for the science, but not the legislation and certainly not the politics involved in the industry.

Yet, overall most students indicated they had changed their attitudes to lifelong learning skills between the time they took on the placement and finished. There are some anomalies in students who perceived that no change took place. For example Student 24 (Fig 4) took on the placement after she had been in the workforce a couple of years and therefore perceived there was no change in the work she undertook. She was confident she ‘knew it all’. In contrast however, her employer perceived a change in the levels of autonomy in Learning and some other facets. These discrepancies and innuendos can be easily accounted for via the more detailed comments collected in the WSD assessment.



Self Management reflects organising and evaluating oneself and the need to plan, and acquire information. Self Management was measured using a series of questions directed at how well they engage in reflective practices to manage and organise themselves in their role.

In this facet a student commences at level 1 by ‘using reflective practice to organise information and establish roles using a simple format’ to move into level 5 where a student ‘uses reflective practice to articulate visions, goals and innovative strategies’.



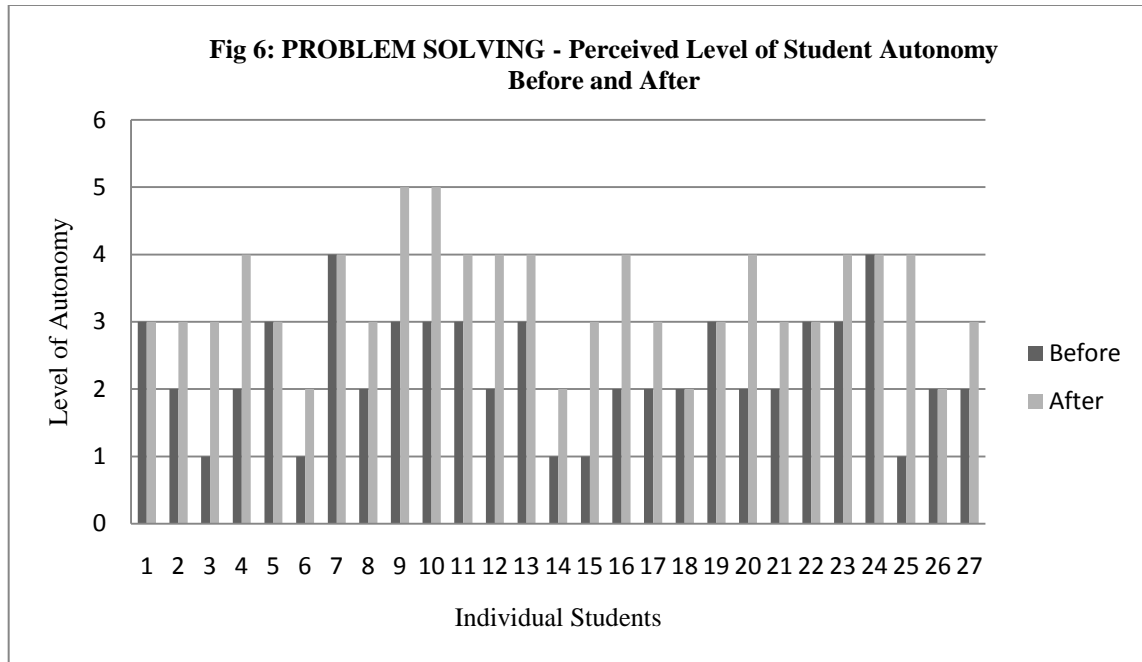
In this segment 67% admitted they had weak reflective practices and minimal monitoring of their work. Typically a student would admit:

I'm very bad at meeting deadlines ... I try to timetable myself but it just doesn't work. I get interrupted.

Even though it wasn't typical, sometimes an employer would comment on how students conduct themselves in the workplace like *"She would interrupt a professional conversation by answering her mobile phone!"* and another employer commented *"She dressed professional but attitude not professional. She wasn't motivated to work here. She has no professional skills"*.

Most students hesitated with their responses when they were questioned on their goals and visions. The typical response was: *"I don't know to be honest"*; *"I'm not quite sure"*; or would focus more on more pecuniary visions like *"I want money to pay off my house"*.

The highest percentage perceiving no change took place 'Before' and 'After' placement was in Self Management (33% or N=9). Yet, those that perceived there was no change rated themselves at level 3 and above [Fig. 5]. Employers likewise generally perceived less change in Self Management than most other facets between the time students entered and exited the placement.



Problem Solving assessed the student’s ability to engage in synthesising and analysing with a ‘high degree of guidance’ (level 1) to that of applying sophisticated critical thinking and analysis to initiate change and extrapolate outcomes’ (level 5).

Students varied in their approach to problem solving with some engaging more successfully than others. For example:

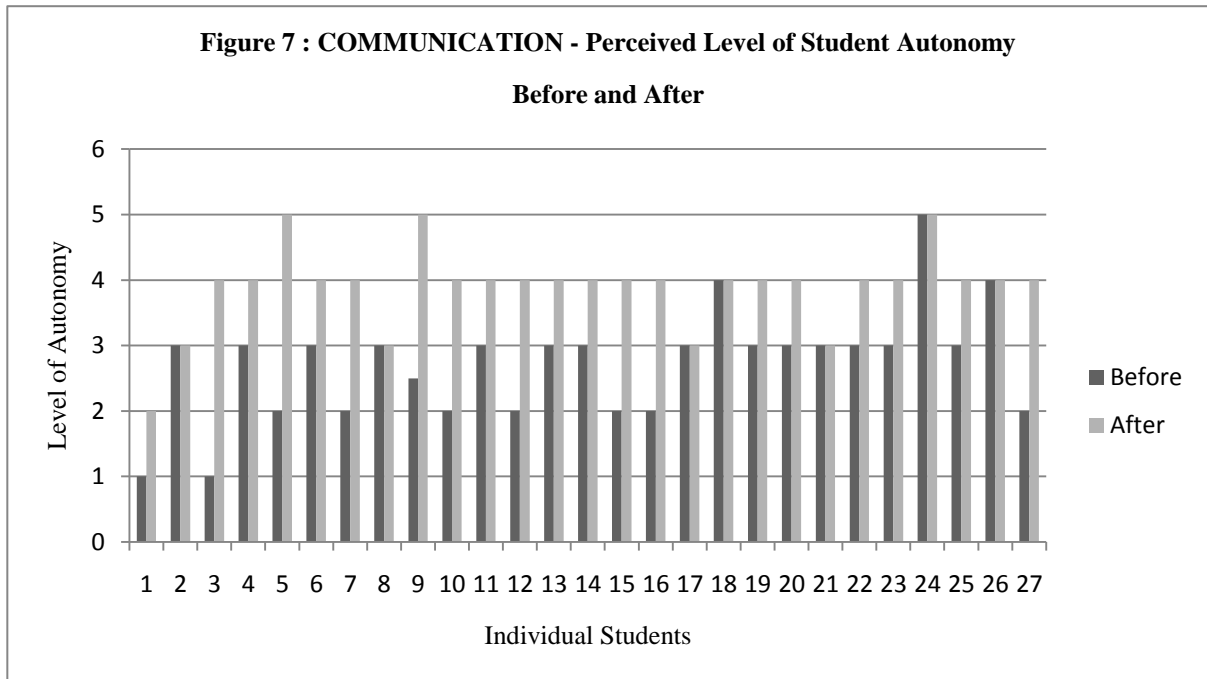
Student 1: I have been successful ... I had to reconfigure the landfill layout and adopt a new approach to landfill design. I also chose to impose new restrictions...

Student 2: I am better at using prescribed info rather than being creative.

This facet together with Communication not surprisingly, recorded some of the lowest differences in ‘Before’ and ‘After’ change. Approximately a third (30% or N=8) recorded no change had taken place in their skills of problem solving (Fig.6). Most students commenced around autonomy level 2 and completed their placement at level 3. Therefore it can be inferred that Problem Solving requires further training prior to entering the workforce.

The role of communication was to measure the progress of a student from having a ‘structured guideline to communicate information’ [level 1] to ‘negotiating and assessing their own values while respecting the contribution of others in communication information’ [level 5].

Even though statistically there was a significant change in levels of communication before and after placement, several comments at the interviews and in reflective journals and essays indicated there was a considerable conflict in this facet.



Employer on negotiation: “I would like to see more communication from XXX. Would like to have been kept in the loop more.”

Student on diversity in the workplace: “I feel a bit reserved because working with white people. But didn’t feel uncomfortable at all”

Student on feedback: “Couple of inquiries from managers confused me. I sent it (report) to them and never had any feedback from them. I didn’t feel confident to ask for feedback”

Student reflection on understanding: “Sometimes felt I didn’t have a full understanding of what he (supervisor) wanted from me. May be my expectations were different?”

Despite these issues, seventy four percent [N=20] perceived they operated at a higher Level of Autonomy in Communication, when they completed the placement. According to student and employer responses most students commenced at level 2 and completed at level 4 indicating considerable progress in Communication. This facet shows the highest degree of agreement in the perceived scores of student and employer (Fig 7).

Based on the above individual responses it was possible to identify three categories of students. Students were grouped according to their perceived level at completion of the placement was higher or lower than that of the employer.

- [a] The Over Confident [overall predictions higher than employer] N= 18 (67%)
- [b] The Under Confident [overall predictions lower than employer] N=8 (30%)
- [c] The Neutrals [overall predictions show no change] N= 1(3%)

Other Outcomes of WSD

The WSD enabled students to reflect not only on their before and after outcomes, but also to articulate their strengths and weaknesses.

Students realised that pursuing a goal wasn't easy in life and this student learned it the hard way by engaging in the workplace and reflecting on WSD facets such as Initiative and Self Management.

I had a passion for land management and knew this is what I always wanted ... but had to be patient. Had to compromise between family commitments and financial support to get to this goal.

For some students the WSD triggered choices in future employment, as quoted by this student:

Reflecting on my work skills and where I would like to be in the future, I found that working at the Council is heavily customer service based, and working for the community can be stressful and difficult to deal with at times. Future employment areas I'd consider would include working for a consultant agency, private companies or in the mining and industry.

Others reported the WSD assessment motivated the student to return to university studies full time. I didn't have a job. I lost interest in uni studies. I was not motivated to finish. It was just me ... I lacked self confidence. I took 6 months off and the re-enrolled in this subject (Professional Placement) and one other. The placement helped me to think about what I'm doing ... what I want in life etc ... I have now enrolled in seven subjects and 'am more organised and motivated.

The WSD via the Interview, extracted personal information that made the student responses more comprehensible. A student from a mining background said:

Growing up in a mining community I could see the benefits to a small community. I can now apply that (experience) to my own ... I see an environmental and economic balance in mining. From the money you get from mining you can improve the environment.

The above results indicate that the WSD can be used as a specific tool to engage the students in reflective thinking and assess their potential contribution in the employment market while engaging in self assessment of the progress they make through their placement.

Discussion

This research had four initial outcomes:

- To enhance student learning outcomes from the reflective use and understanding of WSD concepts
- To bridge the gap between theoretical learning at universities with that of practical skills required in the workplace
- To use assessment outcomes from WSD to evaluate students' experiences and inform curriculum change and improve WIL outcomes
- To road test a comprehensive set of work skills that are measurable both qualitatively and quantitatively through time

Enhance Student Learning Outcomes

The WSD provided an opportunity for students to articulate and reflect on their strengths and weaknesses in terms of employability. In a set of generic work skills students were able to observe and identify their level of performance in each skill and also rate their performance through time.

Overall student learning outcomes measured using the WSD was very positive indicating a significant ($p=0.05$) change in their Levels of Autonomy before and after the placement. These perceived changes were higher with students than with employers. This could be a result of students having little confidence when entering a placement, and once they find their feet becoming more confident and perceiving a larger change. This possibly exaggerated their perceived Levels of Autonomy. Employers being more experienced with their workforce, assign more moderate scores at the end of the placement.

The Interview component was most effective in assessing learning outcomes in that it allowed personal contact and was conducted impromptu. Body language, facial expression, voice modulation, and overall level of confidence in responding were observed and incorporated in the assessment. The interview also provided an opportunity to discuss strengths and weaknesses in learning outcomes and project future employability.

Bridge the gap

The research demonstrated that the WSD provided a framework for employers to explore the performance of the student across a comprehensive range of nationally accredited employability skills and identify gaps.

Despite the improvement in Levels of Autonomy in all facets of work, student feedbacks indicated the poor capacity to articulate goals and visions (Self Management) and reflect on lifelong learning skills (Learning). This is a possible outcome of academic teaching which focuses on immediate outcomes (success in degree program) rather than long term goals (employability).

Although one in three students [74%] perceived they had achieved some degree of improvement in Technology, individual comments indicate that there were glitches. While the universities cannot be expected to possess the latest Technology for all industries students seek placement, it is possible to teach the students how to apply their knowledge to find and generate information or data, when engaging in new Technology.

The above outcomes illustrated the observed gap between theoretical learning that takes place in the classrooms and practical work experience in industry. This gap can be articulated further by collecting feedback on the practical value of each subject/course undertaken (by the student) towards the placement; this research is currently ongoing.

Evaluate Student Experiences

The initiative to engage gainfully in a placement was restricted at times owing to the timing of the placement and conflict with other academic courses. It was observed that those students who participated in the placement fulltime completed their placement with higher Levels of Achievement.

With further research, the three categories – Over Confident, Under Confident and Neutral - can be extrapolated to student background characteristics to give a better insight to student placement performance and evaluate their experiences.

In extrapolating student experiences to curriculum change, this research has identified areas of strengths and weaknesses from both the student and employer points of view (Table 4). While problem solving and self management are perceived by students on relatively lower levels of autonomy than the rest (levels 3.5 and 3.6 respectively), employers perceive technological application (level 3.1) and self management (level 3.2) as requiring further engagement or a higher Level of Autonomy.

Measurable through time

The WSD was able to provide a qualitative and quantitative measure of the student's progress throughout the placement. For example, both students and employers agreed, that at the commencement of the placement, students worked with some degree of structure and guidance (Level 2) and on completion most worked independently and within the given guidelines (Level 3). This indicates that through time students are moving from being detached observers to active learners.

The Levels of Autonomy were useful to assess placement progress over time for each of the generic work skills. Further the interview process assisted students to reflect on their experiences qualitatively via statements provided and quantitatively while assigning a score to a specific performance.

Limitations

The findings in this study are preliminary and restricted by the operating time frame [6 months] with sample size limited to 48 respondents. This prevented the investigation of possible groupings of students by work experience, personal background and academic experience. Also, this paper focuses mainly on learning outcomes before and after placement. Yet, the data collected using the WSD framework has potential for further analysis and understanding of students engaged in WIL.

Conclusion

Work Integrated Learning requires a systematic and substantial methodology of assessment. The challenge was to devise a measure of WIL assessment that incorporated university learning outcomes with that of employer objectives and generic in use. This was successfully accomplished by the WSD.

The results in this paper indicate that the WSD framework in aligning student autonomy with generic work skills is an effective strategy to provide feedback and motivate students to reflect on their 'best fit' in a scattergram of assorted skills and knowledge. It is a generic framework that can be adopted by other disciplines to progressively measure a student's adjustment to key working skills over time and monitor their learning outcomes.

Students actively engage in WIL to apply their theoretical knowledge to practical understanding in the work place. This research has proved that the WSD framework as a monitoring tool has had a positive effect on student learning and student motivation in the workplace.


The WSD enabled both students and employers to engage in substantial reflection on the whole WIL process, and shows potential for wider application. While this research has provided valuable feedback in bridging the gap between learning outcomes and practice based assessment, more long

term data collection is required for a better understanding of student performance in the workplace and for supporting the WSD as a management tool in Work Integrated Learning.



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APPENDIX 1



Work Skill Development Framework

LEVEL OF STUDENT AUTONOMY

↑

FACET OF WORK	Level 1 Student requires a high degree of structure & guidance	Level 2 Student works with less structure / guidance / supervision	Level 3 Student works independently and within provided guidelines	Level 4 Student works innovatively with limited guidelines	Level 5 Student works within self-determined guidelines appropriate to the context.
A. INITIATIVE Student establishes role and adapts	Student requires a high degree of guidance to identify and to adapt to position	Student identifies role requirements with some guidance and adapts to position	Student establishes role independently and adapts readily to this context	Student adapts the role appropriately and through consultation and fulfils original and new requirements	Student identifies future goals and projects while fulfilling original requirements
B. TECHNOLOGY Student applies technology to find and generate information / data	Student uses basic technology with high degree of guidance to find and generate information / data	Student uses technology with some degree of guidance to find generate information / data	Student uses technology independently to find and generate a range of information / data	Student shows a complete understanding and appropriate mastery in choice of technology to generate information / data	Student shows a high degree of sensitivity in the application of technology to generate information / data
C. LEARNING Student critically evaluates their role and objectives to establish life long learning skills	Student evaluates information at a minimum level to understand their role.	Student evaluates with some degree of guidance, the methodology / technology in use, to generate knowledge	Student critically evaluates the match between theoretical and practical applications to generate knowledge	Student critically evaluates the processes in seeking or filling gaps to generate knowledge	Student critically evaluates and uses knowledge to generate lifelong learning skills
D. SELF MANAGEMENT Student reflects and self manages time and information	Student uses reflective practice to organise information and establish role, using a simple format	Student uses reflective practice to master methods and practices using existing structures	Student uses reflective practice to evaluate and monitor own performance with confidence	Student uses reflective practice to deliver clear projects and goals	Student uses reflective practice to articulate visions, goals and innovative strategies
E. PROBLEM SOLVING Student synthesises and analyses to create solutions	Student applies a simple structure to understand existing knowledge	Student applies a structured format to synthesise and analyse existing data and knowledge	Student works independently to synthesise and analyse a range of resources to generate new knowledge	Student applies critical thinking and works collaboratively to synthesise, analyse and produce innovative and creative solutions	Student applies sophisticated critical thinking and analysis to initiate change and extrapolate outcomes
F. COMMUNICATION Student understands self and others through inter-personal communication & teamwork	Student requires highly structured guidelines to communicate information	Student requires some degree of guidance to understand individual role and communicate within the team	Student demonstrates confidence and assertiveness in communicating information	Student communicates independently and competently showing high degree of understanding of workplace culture and professional ethics	Student negotiates and asserts their own values while respecting the contribution of others in communicating information

The purpose of this framework is to integrate key employability skills into WSL and devise a measure of qualitative assessment in the workplace. This concept was developed by Sue Bandaranaike, James Cook University and John Wilson, University of Adelaide. It is based on the original Research Skills Development Framework of Wilson & Orsigen (2008). http://www.jcu.edu.au/teaching/tdg/publications/documents/bswckslcpd_041708.pdf - sunit.bandaranaike@jcu.edu.au

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Learning and earning: What can business students learn from part-time employment?

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Background: There is substantial evidence from the USA, UK and Australia that greater numbers of university students are mixing their studies with paid employment. The high rate of student participation in the labour market raises a number of interesting questions, particularly for those students enrolled in vocational courses such as business. Anecdotal evidence suggests that these students are developing a range of practical skills and knowledge about the world of work and the operation of real businesses. However, there is little empirical research investigating what skills and learning benefits business students might gain from part-time work. More importantly, it is unclear whether students can easily connect learning in the workplace with learning in the classroom environment.

Aims: The purpose of this study is to evaluate the role of part-time work in helping business students understand the world of work and in allowing them to integrate theory and practice.

Method: Ninety-seven business students were surveyed mid-semester following a one hour workshop designed to encourage students to reflect on informal learning and tacit knowledge acquired in the workplace.

Results: The results indicate that students found the intervention useful but that it did not change their perspectives about their paid part-time work. The results also show that a majority of business students do perceive some congruence between their work and academic studies. In addition, paid part-time work is perceived as a useful activity for developing a number of transferrable skills, most notably interpersonal skills, teamwork and adaptability, numeracy skills, problem solving and communication. The analysis reveals that work/study congruence has an important influence on both job satisfaction and satisfaction with academic performance. Part-time work appears to contribute to academic performance by developing business knowledge and skills that are transferable to university contexts and by providing students with a more grounded perspective which allows them grasp abstract academic concepts more quickly and easily.

Conclusions: If part-time work does have useful integrative learning outcomes for business students and if appropriately designed pedagogy can assist students to integrate their experiences in the workplace with the curriculum then paid part-time work may be a useful alternative to more costly Work Integrated Learning programs in business.

Keywords: Part-time work, workplace learning, students, skills

Introduction

There is substantial evidence from the USA, UK and Australia that university students are increasingly mixing their studies with paid employment (Barron & Anastasiadou, 2009; Bradley, 2006; Greenbank, Hepworth, & Mercer, 2009; McInnis & Hartley, 2002; Moreau & Leathwood, 2006; Richardson, Evans, & Gbadamosi, 2009). In Australia, many first year students are already in paid employment when they commence university and it is not unusual for some of these students to have a number of years of employment experience gained while studying at high school (Biddle, 2007). A recent study of the first year experience reported that 55% of full-time students were engaged in paid work (Krause, Hartley, James, & McInnis, 2005). This proportion appears to increase as students progress with their studies with one Australian study reporting that over 80% of all full-time students were in paid employment (Bradley, 2006).

The high rate of student participation in the labour market raises a number of interesting questions, particularly for those students enrolled in vocational areas such as business. While it has been claimed that the majority of student employment involves unskilled work where there is little or no connection with the students' course of study (Ford, Bosworth, & Wilson, 1995), business students are perhaps somewhat unique because they are not only studying business; they have an opportunity work in and experience real businesses through their paid-part time employment. McKechnie, Hobbs and Lindsay (1997) propose that students in more vocationally-focussed courses should be able to connect their experiences of working part time with their studies. This in turn should enhance academic knowledge and improve academic motivation and employment prospects. This makes business quite different to many other disciplines (i.e. nursing, medicine, psychology, education), where students have traditionally been placed in highly structured work environments in order to develop their practical skills.

This paper reports on an activity that required business students to reflect on their part-time work as a means of sensitising them to the learning benefits of work. This intervention was followed by an exploratory survey which evaluated what skills students develop through paid part-time employment and which considered how the perceived congruence between paid employment and academic study might affects the development of transferable skills.

Reasons for Growing Student Participation in the Workforce

The reasons for increasing university student participation in the workforce are multi-faceted but have been well explored. Most authors have found that financial motives provide the greatest impetus for students entering the workforce (Curtis & Williams, 2002; Ford, et al., 1995; Richardson, et al., 2009). Watts and Pickering (2000) suggest that reduced government funding of means-tested grants in the UK was a major reason for students seeking paid employment while studying. The experience in Australia has been similar, with eligibility requirements for student grants and allowances becoming increasingly stringent. Even when students do qualify government allowances, they do not appear to have kept up with the general cost of living and so are often insufficient as a sole source of income for students (Curtis & Williams, 2002). Hodgson and Spours (2001, p. 375) also argue that increased student participation in the labour force has been influenced by “the rapid spread of 24-hour opening in the retail trade; changes to the Sunday trading legislation; continued economic growth, particularly in the service sector; the appearance of new expensive objects of youth consumption (e.g. mobile phones) and the spectre of increased higher education debt.”

Positive and Negative Outcomes of Paid Part-time Work

Anecdotal evidence suggests that students who work should be developing a range of practical skills and knowledge about the world of work and the operation of real businesses. However, previous studies have indicated that much of this work occurs in service industries such as retail and hospitality (Canny, 2002; Curtis & Shani, 2002; Curtis & Williams, 2002; Ford, et al., 1995; Neill, Mulholland, Ross, & Leckey, 2004). Employers in these industries typically seek out cheap, flexible labour which can multi-task, make decisions and act responsibly and university students appear well suited to these requirements (Curtis & Lucas, 2001). While work in these industries often requires the development of interpersonal skills such as communication, negotiation, problem solving and teamwork, some work tasks are often described as marginal, less skilled, low-paid

casual jobs that have been criticised for providing little understanding or experience of managerial business practices (Darmody & Smyth, 2008; Greenbank, et al., 2009).

Some authors have argued that part-time work may detract from study, undermine motivation and require time that might otherwise contribute to better academic performance (Curtis & Shani, 2002; Humphrey, 2006; Manthei & Gilmore, 2005; Metcalf, 2003). Curtis and Williams (2002), in their study of undergraduate business students in the UK, found that 83 per cent of students who had a part-time job indicated that their work detracted from their studies. This is despite the respondents being business students who were more likely to benefit from their employment by developing a better understanding of business. Bradley (2006) reported a similar finding but his study of 246 full-time university students also found that there were no significant differences in academic performance, academic motivation, perceptions of the difficulty of their university courses or satisfaction with university between students who worked and students who did not work. Furthermore, he found that GPAs were not significantly correlated with the number of hours students worked and that there was no evidence of poorer academic performance amongst students who were in paid employment for more than 20 hours per week. A more recent study conducted in Macau also found no negative relationship between doing part-time work and student academic performance (Wang, Kong, Shan, & Vong, 2010). In fact, Wang et al. (2010) also reported that challenging or course-related part-time work increased Chinese students' GPA and improved their learning attitudes.

Although some studies have found that paid work impacts negatively on academic performance, it has also been claimed that students from working class backgrounds are more likely to engage in paid work (Hunt, Lincoln, & Walker, 2004; Little, 2002). There is some evidence to suggest that working class students do not perform as well as more affluent students, irrespective of whether they are working (Hatcher, 1998; Moreau & Leathwood, 2006). The relationship between work and academic performance is therefore somewhat ambiguous and may be affected by social class. In summary, students who work while studying do exhibit higher levels of stress, and although many perceive that their work interferes with their study, the outcomes in terms of academic performance do not seem markedly different to those achieved by students who are not working.

A contrary view is that part-time work may contribute to academic performance by developing business knowledge and skills that are transferable to university contexts and by providing students with a more grounded perspective which allows them grasp abstract academic concepts more quickly and easily (Greenbank, et al., 2009). According to this perspective, paid part-time work and academic study can be viewed as complementary (Swanson, Broadbridge, & Karatzias, 2006). There is some support for this perspective from school teachers who have found students' work experience to be beneficial to in-class discussions and assignment work (Hodgson & Spours, 2001). Broader advantages include enhanced employability, increased confidence in the world of work, and the improvement of organisational and time management skills (Watts & Pickering, 2000). Rikowski (1992) also argues that paid work is often valued by employers over work experience because students carry it out in their own time, thereby demonstrating self-motivation, self-discipline and a preparedness to work.

While a number of studies have examined the skills developed by students on placements, surprisingly few studies have focussed on the skills that students develop through paid part-time work (Martin & McCabe, 2007). One such study, conducted by Martin and McCabe (2007) in the UK, reported on the employability skills developed by postgraduate hospitality and tourism students through paid employment and how these might complement skills embedded within their curricula. Using Yorke and Knight's (2004) framework, they found that students were likely to develop a range of personal qualities such as interacting with people, adaptability, teamwork and

feeling comfortable in a stressful environment. Similarly, Curtis and Shani's (2002) study of 359 undergraduate business students indicated that 38 per cent of students thought that part-time work improved their ability to deal with people, 36 per cent thought it improved skills such as communication, 34 per cent thought it helped them understand how a business is run, and 31 per cent thought it had helped their self-confidence. While these findings are consistent, there is clearly an opportunity to expand on this work by examining whether paid-part time work does benefit students by facilitating the development of employability skills.

Linking Paid Part-time Work and Study

Swanson, et al. (2006) propose that students who perceive greater congruence between paid part-time work and study should exhibit higher levels of satisfaction. However, there is little evidence that students appreciate the inter-relationships that exist between their work and study (Greenbank, et al., 2009; Hodgson & Spours, 2001). Hodgson and Spours (2001) conclude that students appear more focussed on balancing the separate worlds of study and work than on connecting them.

It has been argued that students' part-time employment experiences should be more closely linked with higher education (Richardson, et al., 2009). Billett & Ovens (2007) propose that the educational value of students reflecting on their paid employment is a resource for developing informed and critical insights about work. They suggest that paid part-time work may be effectively integrated into the curriculum to provide a potentially viable and highly accessible alternative to structured work placement programs. Likewise, Richardson et al. (2009) argue that it will become increasingly important for universities to adapt courses in order to create credible connections between their studies and their work experience. Paid part-time work experiences which are integrated with the formal curriculum may provide a more effective means for developing the knowledge and commercial skills demanded by the business community. If part-time work does have useful integrative learning outcomes for students and if appropriately designed pedagogy can assist students to integrate their experiences in the workplace with the curriculum then it stands to reason that costly work placement programs may not be required.

Study Aims

The purpose of this study is to explore the role of part-time work in helping business students understand the world of work and in allowing them to integrate theory and practice. This exploratory study has four aims. Firstly, the paper describes a simple intervention that was run with business students to sensitise them to the notion that they do develop certain skills through their paid part-time employment. The results consider whether this intervention was useful in helping students think about the links between their work and study. Secondly, the paper explores whether students felt there was some congruence between their paid part-time work and study. Thirdly, the paper examines what skills business students felt they were developing as a result of the paid part-time work. Finally the paper examines whether the perceived congruence between paid part-time work and study is linked with students' development of skills and whether both of these aspects affect the level of job and academic satisfaction of students.

Methods

Following the approach used by Billett and Ovens (2007), students were surveyed mid-semester following a one hour workshop designed to sensitise them to the interface between work and study.

The one hour workshop was designed as an intervention to allow students to reflect on informal learning and tacit knowledge acquired in the workplace. The intervention and questionnaire were deliberately administered mid-semester to avoid exam periods when academic and employment demands may be atypical. The process required students to complete two worksheets. The first worksheet was completed individually and contained a number of open-ended questions requiring students to think about their paid part-time work. Students then used this information to complete the second worksheet in small groups. The second worksheet contained more focussed questions, which allowed students to compare their paid-part time work experiences and outcomes of paid work with their peers. The small group discussions were followed by a full class discussion which was designed to further illuminate the outcomes of paid work.

Once the class discussion had been concluded students were asked to complete a questionnaire. The questionnaire was administered in the controlled environment of formal class time and under the supervision of the researcher in order to maximise the response rate and to address any questions students raised during the completion of the questionnaire.

The questionnaire was developed from a detailed review of the literature. The first section of the questionnaire asked respondents to provide a number of demographic details, including gender, age, living arrangements, and the number of hours per week typically spent on various activities (including work and study). The second section of the questionnaire required students to indicate their level of agreement with a number of statements related to work-study congruence using a five-point Likert scale. These scales were adapted from the work of Swanson et al. (2006). Students were also asked to rate how satisfied they were with their job, with the academic studies and with their university experience. Following this, the questionnaire asked students to provide a range of details about their paid part-time employment, including reasons for working, the extent to which work interfered with academic study, hourly earnings, length of time with their current employer, whether they were working prior to commencing university, the number of jobs they have had, the sector they are employed in and the size of the organisation they worked for. The third section of the questionnaire focussed on skills acquisition and included a list of 37 skills adapted from a study by Raybould and Wilkins (2005). Students were asked to use a five-point Likert scale to indicate their level of agreement about whether their paid work had helped them to develop each of the listed skills.

The final section of the questionnaire contained two sets of Likert scales which were used to measure students' self-efficacy and core self-evaluation. The self-efficacy items were based on the eight-item General Self-Efficacy Scale developed and validated by Chen, Gully and Eden (2001). The core self-evaluation items were adapted from the 12 item scale developed by Judge, et al. (2003). It should be noted here that core self-evaluation and self-efficacy are related and overlapping concepts. These two constructs were included in the survey because past research has indicated that they influence learning and satisfaction.

The sample for this study comprised 97 first and second year business students enrolled at a mid-sized regional Australian university. A profile of the sample is presented in Table 1. Eight out of every 10 students (84.5 per cent) in this cohort had some form of part-time employment. Of these, only two students were not working before commencing their university studies. Most students had been employed before, with only 15.6% of students indicating that their current job was their first job. A majority of students had been in their current job for more than 18 months and consistent with previous studies, students were more likely to be employed in retail, tourism and hospitality. The students in this cohort were working an average of 17.7 hours per week with average earnings of \$17.00 per hour.

Table 1: Profile of Respondents

Demographic Characteristics	No.	Percentage	Job Characteristics	No.	Percentage
Gender			Hours worked / week (mean = 17.7)		
Female	55	56.7%	Less than 10	15	23.1%
Male	42	43.3%	10 to 19	33	50.8%
			20 or more	17	26.2%
Age groups (mean = 20.4)			Industry sector		
18	40	42.1%	Shopping & retail	27	37.0%
19 to 20	30	31.6%	Tourism, hospitality & leisure	24	32.9%
20 to 25	17	17.9%	Education & childcare	1	1.4%
Over 25	8	8.4%	Administration & clerical	4	5.5%
Student Characteristics*			Accounting & finance	6	8.2%
FIF	47	8.8%	Trades	3	4.1%
NESB	4	5.0%	Other	8	11.0%
Born overseas	11	13.8%	Time with current employer (mean = 22)		
ATSI	1	1.3%	6 months or less	23	29.5%
Part-time	12	15.0%	7 to 12 months	4	5.1%
Rural/remote	32	40.0%	13 to 18 months	9	11.5%
Caring for dependants	9	11.3%	19 to 24 months	5	6.4%
Working part-time	82	84.5%	Over 24 months	37	47.4%
Working before university	79	81.4%	Hourly rate of pay (mean = \$17.00)		
Living arrangements			\$12.00 or less	14	19.4%
On-campus	16	16.5%	\$12.01 to \$15.00	19	26.4%
Off campus shared accommodation	22	22.7%	\$15.01 to \$18.00	15	20.8%
With parents	47	48.5%	\$18.01 to \$21.00	15	20.8%
Single occupancy	4	4.1%	\$21.01 or more	9	12.5%
Other	8	8.2%	Employer Size		
Work experience (no. jobs) (mean = 3.8)			Under 5	8	10.0%
One	12	15.6%			

Two	16	20.8%	employees 5 to 20	31	38.8%
Three	14	18.2%	employees 21 to 100	19	23.8%
Four	11	14.3%	employees Over 100	22	27.5%
Five or more	24	31.2%	employees		

* FIF = First in family to attend university; NESB = Non-English speaking background; ATSI = Aboriginal or Torres Strait Islander.

Findings

The first aim of this paper was to briefly evaluate whether the one-hour workshop conducted with students was a useful intervention for helping students to reflect on informal learning and tacit knowledge acquired in the workplace. Two thirds of students (68.1 per cent) indicated that the workshop activity was useful in helping them to think about what people might learn from paid employment. To test whether the intervention changed students' perspectives about work and self development, students were asked at the start of the workshop to respond to the following five Likert scales:

- My job helps me to learn about the 'real world'
- My job helps me to understand the world of work
- My job helps me to understand how a business is run
- My job enables me to organise my time more effectively
- My paid work helps me develop skills relevant to my future career

The same five rating scales were also included amongst others on the questionnaire administered at the end of the workshop. Means testing was conducted to determine whether there were any significant statistical differences in the pre- and post-workshop ratings. The testing indicates that there were no significant differences, so it appears that while students found the workshop useful, the intervention did not change their perspectives about work and self development.

The second aim of the paper was to explore whether students perceived some congruence between their paid part-time work and study. Table 2 presents the distribution and mean ratings of student responses to the items related to Work/study congruence.

Table 2: Work-study congruence distribution, means and standard deviation

	Disagree	Neutral	Agree	Mean*	SD
I can apply my academic studies to my job	23	9	46	3.42	1.31
I can apply my job experience to my academic studies	20	14	30	3.39	1.24
Working helps me better understand concepts discussed in class	23	13	46	3.39	1.27
My job has a positive effect on my academic studies	21	33	27	3.09	1.08
Working while studying has enriched my educational experience	24	23	30	3.09	1.21
The degree I am studying is related to my job	37	13	35	2.89	1.57
Aggregate percentages / mean	31.7%	22.5%	45.8%	3.18	1.01

Mean based on 5 = Strongly agree ... 1 = Strongly disagree

It is clear from the data presented in Table 2 that a majority of students agreed with most of the statements about work-study congruence. While students were noticeably less likely to agree that their business degree was related to their job, the distribution for this item was distinctly bi-modal. All of the other items received positive mean ratings indicating a relatively high level of work/study congruence.

The third aim of the study was to examine the skills business students felt they were developing as a result of their paid part-time work. The 37 items used on the survey were grouped into eight broad skills categories to simplify interpretation. Table 3 shows the distribution and aggregate descriptive statistics for each of the eight categories.

Table 3: Skills development, distribution, means and standard deviation

Skill Category	Disagree	Neutral	Agree	Mean*	SD
Interpersonal Skills	13.2%	14.4%	72.4%	3.88	0.91
Teamwork & Adaptability	15.1%	14.7%	70.2%	3.77	0.92
Numeracy	17.8%	15.6%	66.7%	3.76	1.27
Problem Solving	16.8%	19.7%	63.5%	3.67	0.85
Oral & Written Communication	18.5%	20.4%	61.1%	3.64	0.96
Self Management	20.7%	19.7%	59.6%	3.57	0.83
Management & Leadership	23.2%	21.6%	55.2%	3.44	0.89
Information Management	40.6%	21.0%	38.4%	2.97	1.18

*Mean based on 5 = Strongly agree ... 1 = Strongly disagree

The table indicates that most students were inclined to agree that they were developing a number of skills as a result of their paid part-time employment. More than two thirds of students (72.4 per cent) agreed that their work was helping them to develop interpersonal skills. This category included the following items:

- Ability to deal with a wider range of people (mean = 4.20)
- Awareness of how I interact with people (mean = 4.07)
- Better listening skills (mean = 3.91)

- Maintaining professional and ethical standards (mean = 3.89)
- Empathy in dealing with colleagues and customers (mean = 3.84)
- Cultural awareness in dealing with colleagues and customers (mean = 3.84)
- Giving and receiving feedback on performance (mean = 3.46)

The teamwork and adaptability category also rated highly and included the following specific skills:

- Working better with others in a team (mean = 3.97)
- Feeling more comfortable in busy and stressful situations (mean = 3.90)
- Adapting creatively to change (mean = 3.44)

Numeracy, problem solving and communication were rated positively by a majority of students. It was a little disappointing to observe that business students were less likely to agree that their work helped them to develop management and leadership skills and information management skills. Given the high proportion of Generation Y students in the cohort it is possible that many students may perceive that they already have good information management skills and that their work offered limited opportunities to enhance these further.

The final aim of this study was to explore whether perceived work/study congruence is linked with students' development of skills and whether both of these aspects affect job satisfaction and academic satisfaction. The analysis also included measures for self efficacy and core self-evaluation because the literature suggests that students who have higher levels of self-efficacy and core self evaluation are more like to provide higher satisfaction ratings. A Pearson correlation analysis was conducted to explore the relationship between all of these variables. 'Skills development' was reduced to a single variable by calculating an average rating of all skills for each respondent. The results of the correlation analysis are presented in Table 4.

Table 4: Pearson correlations between main study variables

Measure (no. items)	1	2	3	4	5	6
Antecedents						
1. Core self-evaluation (12)	–					
2. Self efficacy (8)	.74	–				
3. Work/study congruence (6)	.33	.36	–			
4. Skills development (37)	.43	.49	.55	–		
Outcomes						
5. Satisfaction with job (1)	.30	.39	.68	.52	–	
6. Satisfaction with academic performance (1)	.25	.26	.31	.26	.42	–

All correlations were significant at the 0.05 level

As expected, the core self-evaluation and self efficacy measures were highly correlated with each other. Self efficacy relates to a person's belief about their capabilities to produce designated levels of performance and is a component of Judge et al.'s (2003) core self-evaluation measure. A strong correlation between these two measures would therefore be expected. Judge et al. argue that core self-evaluation determines an individual's disposition towards job satisfaction and in this analysis both core self-evaluation and self-efficacy were moderately correlated with job satisfaction. However, what is most notable from these results are the good to moderate correlations between:

work/study congruence and job satisfaction (0.68), work/study congruence and skills development (0.55), and skills development and job satisfaction (0.52).

It is somewhat disappointing that satisfaction with academic performance was not strongly correlated with any of the antecedent variables.

Two separate regression analyses were conducted to further explore the relationships between the four antecedent measures and students' satisfaction with their job and academic performance. The results of the regression analyses are presented in Table 5.

Table 5: Multiple Regression Analysis of Key Variables and Job Satisfaction

Variables	Regression Model 1 Job Satisfaction			Regression Model 2 Satisfaction with Academic Performance		
	β	t-value	Sig.	β	t-value	Sig.
Core self-evaluation	0.02	0.12	0.902	0.11	0.65	0.517
Self efficacy	0.07	0.45	0.652	0.08	0.43	0.671
Work/study congruence	0.57	4.94	0.000	0.37	2.51	0.015
Skills development	0.13	1.04	0.301	-0.08	-0.48	0.632
Constant	-0.82			0.84		
Multiple R	0.70			0.41		
R ²	0.49			0.17		
F test statistic / significance	F = 15.55, p = 0.00			F = 3.31, p = 0.02		

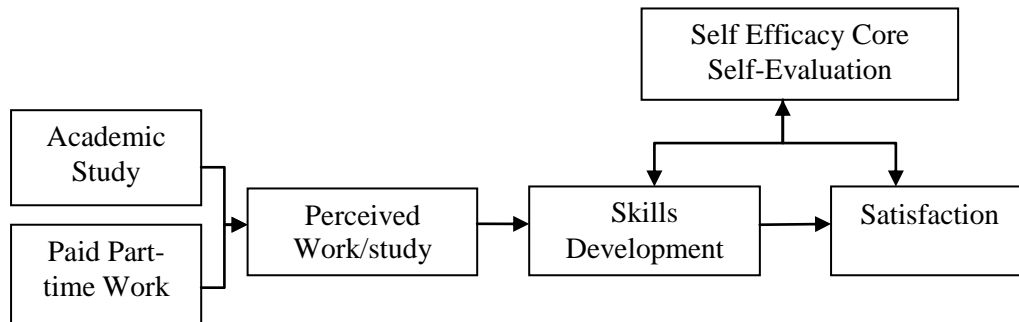
The results for the first regression model (job satisfaction) indicate that the *F* ratio of 15.55 was significant, with a multiple *R* value of 0.70, and an *R*² of 0.49, indicating that about 49% of the variation in job satisfaction is explained by the variables included in the regression. The results indicate that work/study congruence ($\beta=0.57$) contributed most strongly to job satisfaction and that the link between these two measures was significant. The results for the second regression model (satisfaction with academic performance) were similar but less convincing. Work/study congruence ($\beta=0.37$) was again the only measure that was strongly linked with students' satisfaction with their academic performance. However, the regression model indicates that only about 17% of the variation in academic satisfaction is explained by the variables included in the regression. This would suggest that there are many additional unmeasured variables that contribute to satisfaction with academic performance.

Conclusion

This paper has reported on a number of the benefits of paid part-time work discussed by other researchers. It has identified that a majority of business students do perceive some congruence between their work and academic studies. In addition, the results have shown that from a student perspective, paid part-time work is perceived as a useful activity for developing a number of transferrable skills, most notably interpersonal skills, teamwork and adaptability, numeracy skills, problem solving and communication. These skills are often challenging to develop through traditional, classroom-based instruction.

The correlation and regression analyses presented in the latter part of this paper suggest that there are some links between work/study congruence, skills development and job satisfaction. While the regression analysis only allows us to conclude that work/study congruence is linked with for job satisfaction, and to a lesser extent, to satisfaction with academic performance, there are a number of interesting correlations that warrant further research. One possibility is that higher work/study congruence may facilitate the development of skills in the workplace. The acquisition or development of skills may then impact on self-efficacy and core self-concept, as well as on satisfaction. These possibilities are presented in Figure 1.

Figure 1: Possible links between study variables



While the small sample size used in this study does not support the links suggested in figure 1, there is an opportunity to repeat this work with a larger sample size to test these propositions. A larger sample size would also allow for more sophisticated analyses such as path analysis or structural equation modelling.

At a more pragmatic level, the results provide some support for the notion that business students do develop skills that have been identified as being important in the business world through their paid part-time work. It would be interesting to explore how the skills developed through paid part-time work contrast with other WIL approaches such as business simulations and internships. Further research might also explore whether business students report higher levels of work/study congruence than students from other disciplines. Given the importance of work/study congruence, there is an opportunity for business schools to develop new pedagogic approaches, activities and assessment designed to increase work/study congruence for students. Such approaches might meaningfully help students to integrate their experiences from the world of work with their studies. It would also be useful to investigate ways to encourage students to articulate skills and work/study connections in interviews and job applications. Given sufficient time and resources, there is also some scope to work with employers to develop joint programs aimed at closing the gap between work and study.

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Earning and Learning on Campus – The Students as Staff Program

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Although a high percentage of Australian university students work whilst studying, relatively small numbers are employed on their campus. Few Australian Universities systematically or actively recruit and prepare students for employment on campus. The focus of this paper is to overview the outcomes of a university wide initiative that was piloted at Victoria University (VU) in 2009 and further implemented during 2010, entitled Students as Staff.

The pilot was implemented in the context of Victoria University's strong commitment to the enhancement of its student's levels of employability. The University is currently undergoing a far reaching restructure of its activities and programs to ensure VU graduates are job, career and future ready. VU students are amongst the most linguistically and culturally diverse cohort in Australia with a higher relative proportion of "first in family" and are heavily involved in the labour market. The Students as Staff program is designed to respond to the challenges presented by this VU student cohort and to enhance both the student's engagement with their studies, and their development of graduate capabilities. This innovative pilot program links student employment and with the largest employer in the region, Victoria University.

This pilot was developed after a 2007 feasibility study which drew on experiences of a partner university, the University of Texas at El Paso (UTEP). This paper reports the findings of the evaluation of the pilot including the student experience, perceived student benefits and the supervisors' experience and perceptions. It offers an insight into models of student employment which link to Work Integrated Learning (WIL) opportunities for students, including an international exchange model. The paper also incorporates a detailed evaluation of the Students as Staff pre-employment workshop including a discussion of the research findings that link workshop attendance to a smoother transition into the VU workplace.

Evaluation of Students as Staff suggests that a high percentage of students have benefited greatly from their involvement in the program. Improved communication skills, enhanced team work skills, an improved knowledge of university procedures and a stronger connection to university life at VU are just an example of the findings of the program to date. These evaluation findings confirm that the 100 students who have been employed through Students as Staff have had a fundamentally positive experience. The data also suggests that their Supervisors are just as satisfied. Based on such encouraging findings, the Students as Staff program has built a strong foundation for future growth and development.

Keywords: On campus employment, graduate capabilities, student engagement, LiWC, WIL

Introduction

In Australia a dynamic range of factors are currently impacting on students' experience of university. As financial imperatives compel most students to work more hours to meet living expenses, "over half of university students have to balance study with part-time employment" (Payne & Percival, 2008), there appears to be growing disengagement with university and their studies. At the same time there is a significant trend for many universities in Australia to shift or link learning to real environments outside the classroom (Patrick et al, 2008). This shift is being driven by the need to increase students employability skills and work readiness (Precision Consulting, 2007). Therefore developing strategies to address this growth in WIL programs and the financial needs of students, whilst not detracting from the engagement of students with university is a complex challenge faced by all Australian Universities.

At VU this challenge is heightened by three factors; the diversity and needs of the student cohort, the new strategic directions of the University and the role VU plays in the western region. VU students are more disadvantaged, work more than the average Australian student and are less engaged with their university. In proactively responding to these factors the university is implementing a range of significant changes across all courses to include LiWC into all of its programs and a range of strategies to enhance the student experience at VU. The Students as Staff pilot project is one of the suite of initiatives currently being implemented. This project attempts to respond to the challenges presented by the VU student cohort, seeks to enhance student's engagement and augment student's employability skills. In addition, it allows VU to fulfil responsibilities as the largest employer in the region by developing a model of student employment on campus. This paper overviews the rationale for the program and examines the outcomes from the perspective of the students and VU supervisors in terms of benefits, motivations and experiences.

Context for the Pilot Project

Victoria University is a large multi campus university encompassing further education, vocational and higher education sectors with over 51,000 students. The University is located in the western suburbs of Melbourne, a region of significant disadvantage and as the only major Higher Education institution, plays a key role in the region. VU has one of the most culturally and linguistically diverse student cohorts in Australia and is the only Australian university to be in the top 10 for both lower socio-economic status and language diversity. Therefore "VU deals with a complex pattern of disadvantage which provides many challenges in fulfilling its mission to transform the lives of its students." (Harman, 2008)

In the Australasian Survey of Student Engagement (AUSSE), conducted by the Australian Council of Educational Research (ACER) in 2008, results for VU show that 9 % of VU students work for pay on campus which is about the same as for benchmark universities and other Australasian universities (ACER, 2008a, p32). The Students as Staff pilot program aims to significantly increase student employment across the university.

The impetus for the program relates to:

- boosting engagement with the university to impact on the attrition rates
- providing avenues to gain financial support on campus, not off campus
- linking work and learning to enhance employability skills

Factors that impact on attrition with particular relevance to VU include low socioeconomic status, students with parents with low qualifications, and the difficulties associated with juggling work and study (Gabb, Milne & Cao, 2006). The institution specific AUSSE (ACER, 2008a) results for VU support these findings that "VU students are less attached to their university than other students" (Gabb, Milne & Cao, 2006). VU students performed less than the national average on a range of dimensions including spending less time on campus out of class than students at either benchmark universities or all Australasian universities, and spend less time at campus events and activities than other Australasian students.

Pascarella and Terenzini (2005) outline the negative impact employment has on study generally but concludes that working on campus "had positive net effects and can enhance student progress and completion" whereas off campus employment may not. The greatest impact seems to come from "total level of campus engagement, particularly when academic, interpersonal and extracurricular involvements are mutually reinforcing "(Pascarella & Terenzini, 2005, p 64). Kuh, Kinzie, Schuh,

Whitt, & Associates (2005) endorses the widespread use of students in paid paraprofessional roles and links this to benefits for the students in their learning as well as for university staff and the enhancement of the University as a learning community, and cites University of Texas (El Paso) a VU partner as a successful model.

Results for the AUSSE (ACER, 2008) confirm these benefits of on campus employment in the Australasian context with students working for pay on campus having a higher active learning score compared to those not working on campus. In the AUSSE, the work integrated learning score measures the extent to which learners have blended academic learning with workplace experience. On campus employment is proposed to “offer students a greater sense of community inclusion as well as opportunities directly related to interactions with academics” (ACER, 2008).

Therefore expansion of opportunities for employment on campus at VU is seen as an important strategy in enhancing engagement and learning, decreasing the likelihood of attrition, enabling students to earn money on campus and not be distracted with off campus employment as well as potentially providing links to student’s studies with on campus LiWC experiences. On campus employment of students has the opportunity therefore to impact these outcomes for students as well as provide a range of benefits to the university.

The Students as Staff initiative is designed to contribute to achieving several goals notably Learning in the Workplace and Community (LiWC) and the implementation of the Student Experience Strategy whilst also contributing to the financial support of VU students. At VU statistics indicated that in 2007 15.6 % of domestic students and 28.46 % of international students, which equates to 6679 students, were seeking part time employment (Caldwell, 2009, p19). This indicates a significant pool of potential students from which Students as Staff positions could be filled.

VU is currently focused on how best to organise, integrate and enhance the LiWC experience for students. Researchers have outlined what constitutes effective LiWC (Harvey, Moon & Geall, 1997). Billet (2008) has outlined a number of activities to optimise the experience and the learning over three stages: before, during and after the practical experience which highlights the key role of supervisors in providing support and feedback. These findings provide a valuable framework to inform the development of the Students as Staff pilot to maximise student learning particularly the preparation before and support through supervision whilst the students are working on campus. The model developed for the pilot has also drawn on experiences at UTEP which uses pre-training of students as a key enabler of their program.

In semester 2 2010 the Students As Staff model will be further developed when UTEP and VU will exchange 5 students each in a combined study / Students as Staff exchange between equivalent University departments at each university. During this exchange the supervisors at each university will be linked through videoconference to further explore supervision and support strategies.

In 2007 a feasibility study was undertaken to investigate current practice, barriers and enablers at VU in the employment of Students as Staff at the university, and develop a recommended model to implement a structured and coordinated university wide approach (Nott, 2007). The final report was accepted and a pilot to implement the recommended model was funded for 2008 / 2009. This pilot was implemented with the following features:

Marketing campaign to students to develop a registry of interested students

Pre-employment training of students including information about VU, confidentiality, customer service, team work and links to careers services

Marketing and information to VU departments

Developing links to LiWC at VU to enable students to gain academic credit for their work.
Evaluation of the pilot

Pilot Project Evaluation Findings

An evaluation process has been built in and implemented from the inception of this program. This has enabled data to be collected as students move through the three main stages of the program – from registration, preparation to employment. Supervisors of students were also surveyed in order to gain an understanding of their experience participating in the program. The following section overviews the major findings from the three stages of the program during the period March 2009 – April 2010.

Student Profile - Motivation to Participate

The Students as Staff project was initially marketed to students at VU through distribution of postcards at orientation week, at the Careers Fair and through web based information on the universities website for employment for students. As more students and University staff became aware of the program, word of mouth also accounted for a large number of enquiries. Typically, the program now receives approximately 50 emails per week from students.

Each student who registered their interest between March 2009 and April 2010 was invited to attend a pre-employment workshop and asked to complete the online pre-employment registration questionnaire. Of the 324 students who attended the workshop, 226 responded to the survey.

The results of the pre-employment registration survey show that there is a fairly even interest in the program from both male and female students. Students are also fairly equally divided between Language Other Than English (LOTE) and English in terms of language background. As expected, the majority of students seeking work are full time students, with a concentration in the early years of study.

Where significant results occur are in the numbers of International students wanting to be part of the program. 59.6% of students interested in being part of the Students as Staff program are International students. This is well above the proportion of International students currently studying at VU (25%) (Messinis, Sheehan, Miholcic, 2008, p7). This level of involvement from International students creates a strong need for a practical and clear introduction to the Australian workplace. Although a clear majority of students indicate having Australian work experience, it could be assumed that the majority of these students are likely to have undertaken relatively low skill casual work which is unlikely to introduce them to the complexities of an Australian university workplace.

**Table 1: Demographics of Students attending Pre –employment Workshop
(11 March 2009 – 19 April 2010)**

Criteria	Subgroup	N	% (n=226)
Gender	Male	111	48.7%
	Female	117	51.3%
Student type	Local	92	40.4%
	International	136	59.6%
Main language	English	111	48.7%
	LOTE	117	51.3%
Attendance type	Full Time	211	92.5%
	Part time	17	7.5%
Previous Australian work experience	Yes	169	78.6%
	No	46	21.4%
Year of study	1	68	30.1%
	2	69	30.5%
	3	34	15%
	4	9	4.0%
	5	1	0.2%
	Post grad	45	19.9%

**Table 2: Motivation of students registering for Pre-Employment workshops at VU
(11 March 2009 – 19 April 2010)**

Motivation to participate	% (n=222)
Gain work experience	47.3%
Gain employment relevant to my studies	25.7%
Add to my resume / e portfolio	9%
Clarify career options	5%
Earn money	13.1%
Other	11.2%

Overwhelmingly the stated motivation of students in participating in the program is to gain work experience followed by employment related to studies with 73% of students choosing from these two options. This is surprising given Victoria University’s student profile. Students on average come from socio economic backgrounds well below the Melbourne average “75 % of students in the university come from families in the bottom half of Melbourne’s socio economic distribution” (Messinis, Sheehan & Miholcic, 2008) and so the relatively low response (13.1%) to earning money was unexpected.

However anecdotal evidence gathered during the pre-employment workshops suggests that students see work at VU as being more valuable in terms of their skill development. It may be that the *experience* is what they expect to gain whilst working at VU – whilst other (low level) jobs are sought in order to earn money. 68.5% of International students indicate gaining work experience as a motivator (Table 4) – this may also contribute to this figure.

Table 3: Motivation of students registering for Pre-Employment workshops at VU by gender (11 March 2009 – 19 April 2010)

Motivation to participate	Male % (n=229)	Female % (n=229)
Gain work experience	50.9%	49.1%
Gain employment relevant to my studies	41.7%	52.3%
Add to my resume / e portfolio	50%	50%
Clarify career options	45.5%	54.5%
Earn money	63.3%	36.7%

Motivation for involvement in the program differs slightly between genders with female students seeking employment relevant to their studies as the key motivator and work experience for male students. However the key difference can be seen in the motivation/need to earn money with 63.3% of male students indicating earning money as a motivator compared to 36.7% for female students. Further investigation would need to be undertaken to determine what factors are at play here.

Table 4: Motivation of students registering for Pre-Employment workshops at VU by student type (11 March 2009 – 19 April 2010)

Motivation to participate	Local % (n=229)	International % (n=229)
Gain work experience	31.5%	68.5%
Gain employment relevant to my studies	46.7%	53.3%
Add to my resume / e portfolio	65%	35%
Clarify career options	45.5%	54.5%
Earn money	43.3%	56.7%

International students indicated wanting both general and study related work experience and a desire to earn money. They were less motivated by improving their resume. This difference may be due to a range of factors but could also indicate the terms “resume” and “e-portfolio” are not as familiar to International students, with curriculum vitae being more commonly used outside of Australia. It could also reflect the strength of International students need to gain work experience to support immigration applications.

Gaining an understanding of student motivation to participate provides the Students as Staff program with the opportunity to consider the nature of roles offered to students and to reflect on how the University can provide opportunities to match student interests.

Student Preparation – The Pre- Employment workshop

The pre-employment workshop is one of the key features of the pilot and was designed by educational developers to proactively address the barriers identified during the feasibility study to potential employment of students at the university. It was also designed to assist students in transitioning from students to staff at VU more readily. The pre-employment workshop format includes role plays and game style quizzes to engage students through fun. Assessing the effectiveness of this strategy for both students and VU departments was one of the key tasks of the pilot.

Table 5: Level of student’s confidence applying for jobs at VU after attending the Pre-Employment workshop (11 March 2009– 19 April 2010)

Criteria	N	% (n=257)
Not confident	2	0.8%
Little confidence	3	1.2%
Neutral	51	19.8%
Confident	97	37.7%
Very confident	104	40.5%

Results indicate that the pre-employment workshop was rated as good or excellent by 85% of those students attending it. Students indicated that the key things learnt by students were VU policies, the importance of team work, customer service and how to get jobs at VU. Students report feeling confident/very confident about finding work at VU after completing the workshop (78.2%) and 92.9% of students have indicated that the workshop assisted them when they commenced their VU job.

Comments from the workshop evaluations also indicate many students enjoyed the session and already feel more connected to the University. Comments made by students in the workshop evaluations include:

- “great program, had a chance to meet different people.”
- “Session is really excellent and have a very comfy and funny environment.”
- “Very useful workshop in order to get a job as Students as Staff...learned so much about VU”

Students identified VU polices (45%) and VU information (55.4%) as being in the top 5 topics learnt at the workshop. Others included the importance of team work (27.3%), customer service (37.4%) and how to get jobs at VU (34.9%).

Many students indicated that they would have liked further discussion around resume development and interview preparation. Initially the workshop ran for a full day, but as a result of student feedback and availability of resources it was cut back to half a day making it challenging to incorporate all of the required information.

Student’s positive responses to the pre –employment workshop are supported by supervisors feedback which indicates that 61.6% of respondents agree/strongly agree that the workshop has assisted in preparing their student for work at VU, with 38.5% indicating a neutral response (Table 10). Further work is needed to ensure supervisors of students are aware of the content of the workshop to more accurately review their assessment of its impact and to seek supervisors input to review of content.

Student Employment – Experiences and Benefits

During the pilot the Project Officer liaised with departments to identify and organise positions across the University for students. These positions were then marketed to students who had registered and completed the pre-employment workshop. Feedback was sought from students after about 6 weeks of employment to gain their impressions of working at VU.

A broad range of positions have been offered to students through the Students as Staff program. Positions have varied in their required skill set, duration and complexity ranging from casual short term positions to 12 month roles. Some students have been able to utilise their role as LiWC activity involving assessment related to their studies.

Key employers of students through the pilot project have included Student Connections (incorporates Admissions, Fees, Enrolments and Student Service Centres) which employed 33 students, and the Faculty of Arts, Education and Human Development which employed 36 students.

Table 6: Students experience of employment through the Students as Staff Program (11 March 2009– 19 April 2010)

Students experience (n=34)	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
I enjoy working at VU	4.7%	0.0%	11.6%	25.6%	58.1%
Working at VU has improved my study	7.1%	7.1%	42.9%	21.4%	21.4%
Working at VU has changed my Career plans	4.8%	21.4%	45.2%	23.8%	4.8%
Studying and working at VU has connected me more to university life	2.3%	2.3%	16.3%	34.9%	44.2%
Since I have been working at VU, I know a lot more about VU	2.3%	4.7%	2.3%	34.9%	55.8%

Data from the survey indicates that students overwhelmingly enjoy working on campus (87.3%), and as would be expected report having increased their knowledge about VU (90.7%).79% of respondents indicate that they feel more connected to university life. This finding is consistent with research in the area (Pascarella & Terenzini, 2005) and with the AUSSE (ACER, 2008) findings. In addition 42.8% students indicate that they believe their studies have been improved through their Students as Staff positions on campus again consistent with research in this area. At this stage it is not possible to determine what factors have led students to this belief and whether or not students perceptions are in fact reflected in students results

Table 7: Students’ perception of their transferable skill development (Graduate Capabilities) as a result of VU employment

Students experience (n=43)	None	Quite a bit	Some	Quite a lot	Significantly
Problem solving	4.7%	16.3%	25.6%	34.9%	18.6%
Evaluating, managing and using information	4.7%	16.3%	23.3%	32.6%	23.3%
Communicating in a variety of modes	2.4%	11.9%	21.4%	28.6%	35.7%
Working both autonomously and collaboratively	4.7%	4.7%	27.9%	32.6%	30.2%
Work in an environmentally, socially and culturally responsible manner	2.3%	9.3%	18.6%	34.9%	34.9%
Manage learning and career development opportunities	7.1%	7.1%	21.4%	45.2%	19.0%

Students were asked to indicate how the experience of working at VU had assisted them in developing skills based around VU Graduate Capabilities. Results indicate that 50 -70% of students

believed they had developed quite a lot, or significantly, across all Graduate Capability areas with working in an environmentally, socially and culturally responsible manner and communicating in a variety of modes, being the highest most often cited.

VU Supervisor Experience

Responses were sought from VU supervisors about what strategies they had employed to assist the students' success in the VU workplace. Unfortunately the response rate from supervisors has been low but the feedback still gives some indication about the experiences for supervisors and their departments. Supervisors reported a range of strategies being employed – these included establishing a Facebook site for students employed through the program, opportunities for shadowing senior staff, allowing participation in staff meetings, opportunities for one to one meetings to allow for feedback, giving the student ownership of tasks allowing for progression as skills were gained, and ensuring that students were involved in any social/lunchtime activities.

Another model implemented by one department allowed students to undertake a Recognition of Prior Learning process to gain credit for Certificate IV in Business, completed via the University.

These positive strategies also reflect the feedback given by students about what enabled them to have success in their job role. Student comments about strategies that helped them understand their role include:

Open knowledge sharing environment definitely facilitated effective learning for us.

When a supervisor treated me as competent and trusted me with some work.

**Table 8: What has been helpful to you in understanding your role at VU?
(You can select more than one)**

Criteria	% (n=43)
Direct Supervision	51.2%
Support from Supervisor	79.1%
On-the-job Training	86.0%
The Induction Procedure	53.5%
Clarity about Roles	41.9%
Feedback from Supervisor	58.1%
Supportive co-workers	83.7%

Student responses indicated that supervisor support (79.1%) and supportive co-workers (83.7%) was important in understanding their role. These responses not only support research surrounding the importance of role of the supervisor, but also indicate a need to ensure that VU supervisors are skilled in their ability to manage students. Developing a resource to support supervisors has the potential to allow for further staff development and to support the enhancement of supervisory skills of staff generally.

Table 9: Supervisors’ motivation for employing VU students

Criteria	% (n=12)
Students bring new skills/ideas to the department	33%
Wanting to contribute to LiWC	75%
VU students already have an introductory knowledge of VU	25%
Cost effective recruitment	16.7%
The process of employing a VU student is quicker	8.3%

Table 10: Supervisors experience

Supervisor’s experience (n=13)	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
The processes followed in accessing a student were satisfactory	0%	0%	7.7%	69.2%	23.1%
The pre-employment workshop helped in preparing the student(s) to work at VU	0%	0%	38.5%	30.8%	30.8%
It has been valuable having a student working for us	0%	0%	0%	46.2%	53.8%
Overall I am satisfied with the Students as Staff program	0%	0%	7.7%	53.8%	38.5%

Prior to the implementation of the Students as Staff program, some University staff raised concerns that employing students would encourage cost cutting in terms of recruitment and salary – however this is not evident in the supervisors motivation for wanting to employ a student. In fact the figures indicate that staff have a strong motivation to support a key teaching and learning strategy of the University – with 75% of supervisors indicating they have employed a student because of an interest in contributing to the University’s commitment to LiWC (Table 9). In addition to these results, anecdotal feedback from departments indicates that employing students has required a degree of flexibility and responsiveness to accommodate students’ timetables. This level of flexibility may at times go beyond standard casual employment arrangements, without the stated University LiWC strategy, this flexibility may be difficult to support and implement.

Table 11: Supervisors’ view of benefits of employing VU students in their departments

Benefit	% (n=13)
Technology skills	23.1%
Fresh ideas	53.8%
New skills	15.4%
Contributing to LiWC commitment	53.8%
Trial for potential employees	38.5%
Enhance our communication with the student body	84.6%

A key benefit reported by departments has been new skills and experiences in the departments, 53.8% reporting fresh ideas. This compares to 33% of supervisors indicating this as their

motivation for entering the program – for some departments this appears to have been an unexpected benefit.

Furthermore, after having employed a student, 53.8% of supervisors report contributing to the LiWC commitment as being a benefit of the program (Table 11). This is clearly an area which will be able to be leveraged as the program expands. Many of the roles offered through the program have, with minor adjustment, the potential to provide students with a LiWC experience.

38.5% of supervisors indicate that the program is an opportunity to trial potential employees and though it is too early to tell whether more students will transition into permanent roles at VU, already one student from the pilot as a result of her experience has changed her career goals and recently commenced work after graduation at VU.

Conclusion

Research demonstrates the benefit of Learning in the Workplace activities on employability skills and the enhanced impact on engagement and learning of paid employment on campus. The majority of VU students are heavily engaged in the labour market which is one of the factors impacting their learning and exposing them to greater risk of attrition than other student cohorts. Therefore an initiative that can enhance engagement through paid on campus employment and also boost employability skills is highly beneficial to VU students. The Students as Staff pilot has been designed to respond to the unique nature of the VU student cohort, address the constraints identified in the feasibility study, as well as utilise the experience of programs at UTEP. A key feature of the Students as Staff pilot is the provision of pre-employment workshop to support student's transition into staff roles.

The pilot of the Students as Staff program has been very successful based on the feedback from both students and supervisors. The pre-employment workshop received good student feedback, students report greater engagement with the university and also enhanced graduate capability skills resulting from their Students as Staff roles. Similarly supervisors report a range of benefits to the university and strong commitment to supporting the program into the future. A range of enablers have been identified by students which have assisted them in their successful transition to the staff roles. One key factor is the role of the supervisor and other staff in the work area, the quality guidance available and the resultant impact on student's confidence. Incorporating proactive strategies to enhance the level and quality of support available to students to further enhance outcomes is planned.

Other future directions for the program include further development of Learning in the Workplace and Community opportunities for students, further evaluation and tracking of student outcomes to determine any effect of on-campus employment on student learning and graduate outcomes, and improvements to respond to the needs of participating students as they move through the program .

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Fitting the critical reflection training wheels prior to the WIL journey - embedding preparation into the tourism and hospitality curriculum.

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Critical reflection is widely regarded as a desirable attribute for university graduates. Increasingly, it is being recognised as a necessary inclusion in tourism and hospitality curricula as they transition from a predominantly vocational and management approach to one with a broader social perspective. This paper evaluates the role of an internship program (consisting of a preparation unit and the work integrated learning component itself) in fostering the development of critical reflection as a graduate attribute in tourism and hospitality university curriculum. The paper provides a reflection of teaching practice which identifies the need for change in terms of the curriculum design of an internship preparation unit of study, teaching strategies and assessment design.

Keywords: critical reflection; curriculum design, internship preparation, work integrated learning

Introduction

The benefits of enquiry and reflection on teaching and learning in higher educational settings are increasingly being recognised. The purpose of this paper is to outline an evaluation of a Work Integrated Learning (WIL) program with regards to the role such a program can have in fostering the development of critical reflection as a graduate attribute in tourism and hospitality university curriculum. It is believed that for graduates to be prepared for work and life in general, “attributes relevant to the discipline and for employment and life need to be embedded in the curriculum, which means that they are explicitly taught and, most importantly, assessed” (Radloff *et al.*, 2008 p. 2). Critical reflection is often regarded as an important undergraduate attribute and is commonly associated with students during experiential learning activities such as WIL placements.

Context and rationale

Students undertaking a Bachelor of Business in Hotel and Resort Management (BHRM) at Southern Cross University complete a compulsory internship consisting of 600 hours over no less than 20 weeks. Internship or Work Integrated Learning (WIL) as a form of experiential learning is well recognised as an opportunity for students to gain professional and generic skills (Patrick *et al.*, 2008). At Southern Cross University the School of Tourism and Hospitality Management has incorporated a compulsory internship in its undergraduate degrees since 1989. The placement can be paid, part-paid or voluntary and must be within a tourism or hospitality related organisation. Students complete their internship in the final semester of a three year degree.

Three years ago an internship preparation unit of study, *Professional Development for the Workplace* (PDW) was introduced and is a core for second year students. The content of the PDW unit includes key concepts regarding career development and planning and organisational behaviour. Students are required to demonstrate evidence of critical reflection in both the PDW unit and the internship (which is equivalent to four units of study). In PDW critical reflection is assessed through a Professional Development Plan. In the internship units students are required to critically reflect on a challenging situation they have faced during their first eight (8) weeks of work placement, and then again on their overall experience at the completion of their twenty (20) week

placement. A graduate attribute of the BHRM is noted as being 'reflective in practice'. The impetus for this research was the desire to identify areas for improvement regarding the preparation of students prior to their internship experience.

Graduate attributes for tourism and hospitality university curricula

There is widespread agreement between stakeholders of university education, including employers, professional industry and accreditation bodies, and students themselves that graduate attributes are a core outcome of university education (Barrie, 2004; Biggs & Tang, 2007; HEC, 1992; Radloff *et al.*, 2008). Graduate attributes are defined as:

the qualities, skills and understandings a university community agrees its students should develop during their time with the institution and consequently shape the contribution they are able to make to their profession and society.... They are qualities that also prepare graduates as agents of social good in an unknown future. (Bowden *et al.*, 2000)

Whilst each university develops their own list of graduate attributes to reflect their values, commonly listed attributes include: critical reflection, critical thinking, ethical practice, creativity, independent problem solving, professional skills, communication skills, teamwork and lifelong learning (Biggs & Tang, 2007; Treleaven & Voola, 2008).

As Bowden *et al.* (2003) stated, one function of graduate attributes is to assure employers that graduates have certain skills and attributes as claimed by the respective university. Whereas traditionally the emphasis of higher education was on the development of discipline specific (professional) skills, now it is recognised that generic skills are also valued by employers, and consequently are being expressed as graduate attributes. A recent report into graduate careers in hospitality confirmed industry stakeholders in tourism and hospitality industries desire graduates with transferrable skills which enable them to cope with an increasingly dynamic environment (Lashley, 2004). Tourism as an academic discipline is approximately 30 years old, and "has moved from strong vocational foundations to a more academic basis" (Airey, 2002 cited in Spennemann & Black, 2008, p. 56). Traditionally the academic base of most tourism and hospitality university programs has been reflected by a business management emphasis in the curriculum (Airey & Johnson, 1999; Lashley, 2004; Morgan, 2004; Tribe, 2002). Whilst critically reflexive practice has been recognised as important in management education (Cunliffe, 2004; Holmes *et al.*, 2005; Kearins & Springett, 2003) it has been noted that "tourism and hospitality scholars have been somewhat reluctant, in comparison to their business/management counterparts, to engage with critical pedagogy in their teaching and learning practices" (Wilson, 2010, p. 4). However there is an argument that universities should be producing 'philosophic practitioners' that can satisfy the demands of business and that of the wider tourism society and world (Tribe, 2002, p. 340). Similarly, Lashley (2004, p. 62) states that "there is a strong case to broaden the curriculum so as to embed reflective practice in the student's development".

Critical reflection as a graduate attribute

The terms reflective practice and critical reflection are often used interchangeably. Furthermore, the term critical reflection appears to be used loosely, some taking it to mean no more than constructive self-criticism of one's actions with a view to improvement, (Calderhead, 1989 cited in Hatton & Smith, 1995). Whilst it is beyond the scope of the current paper to discuss the etymology of the

term and analyse the reasons for the lack of consensus surrounding the term, it is important to note Mezirow's (1990, p. 13) fundamental description stating that "critical reflection is not concerned with the *how or the how-to* of action but with the *why*, the reasons for and consequences of what we do" (emphasis added). Critical reflection is more than "stopping to think and problem solve or plan for future action based on what you already know; rather it is critically questioning the content, process, and premise underlying the experience in an attempt to make meaning or better understand the experience" (Mezirow, in Plack *et al.*, 2005, p. 200). Importantly, the transformative learning that can result from critical reflection has the "potential for profoundly changing the way we make sense of our experience of the world, other people, and ourselves" (Mezirow, 1990, p. xiii).

The importance of critical reflection as an essential skill for higher education students is well recognised (Barnett, 1997). Additionally, it is believed that critical reflection skills are a necessary component for life long learning (Biggs & Tang, 2007), also a central aim of university education, and critical for successful participation in today's competitive work environment (Minasian-Batmanian, Koppi & Pearson, 2000; Plack *et al.*, 2005). However the difficulty that many students have with the requirement to critically reflect are well noted (Barnett, 1997; Brookfield, 1998; Hatton & Smith, 1995; Reynolds, 1998, cited in Carson & Fisher, 2006). It is believed that the ability to critically reflect becomes more accessible as we mature but often requires facilitation to assist its development (Fisher, 2009).

Despite the recognised importance of critical reflection skills in higher education students, there is little research discussing how to assess critical reflection. Researchers have written about the difficulties in teaching and assessing critical reflection (Fisher 2003; Johns & Henwood, 2009; Plack *et al.*, 2005), and the assessment of the products of critical reflection, such as journals and assignments is controversial. It is argued that evaluation of such products may impact on the content of the reflection (Boud, 2000; Bourner, 2003; Kerka 2002 and Brookfield 1995, cited in Plack *et al.* 2005). Others such as Gordon; Kennison & Misselwitz; and Woodward (cited in Plack *et al.*, 2005) question the ability to consistently and effectively evaluate subjective knowledge.

It has been argued that if one of the objectives of higher education is to develop reflective practitioners, then despite acknowledging that judgement may impact on the content of the reflective writing (Plack *et al.*, 2005, p. 200), and that identifying transparent criteria used in assessment may be viewed by some adult educators as a "reductionist approach to a holistic activity" (Fisher 2003, p. 324), the need for a mechanism to access students' capacity to reflect remains (Hatton & Smith, 1995). A number of studies have examined the *content* of students' reflective writing, such as communication, interpersonal interactions, personal growth and professional knowledge and skills (Drevdahl & Dorcy, 2002; Jenson & Denton, 1991; Kalliath & Coghlan, 2001; and Williams, Wessel, Gemus *et al.*, 2000; cited in Plack *et al.*, 2005) and some have analysed students' assessments in terms of the *process* of reflection that had been demonstrated (Foster-Seargeant *et al.*, 2000; and Wong *et al.*, 1995 cited in Plack *et al.*, 2005). Hatton and Smith's (1995) typology of reflection enables the process of reflection to be categorised into four levels.

The four levels of writing (as indicated in Table 1) include descriptive writing, (which fails to be reflective); descriptive reflection; dialogic reflection; and critical reflection. The typology depicts a progression towards critical reflection, in which the writer/student would demonstrate increasing levels of complexity and depth. The first level of reflection – descriptive reflection attempts to provide justification for statements however they are often based on personal judgement (Hatton & Smith, 1995). Progressing in the level of understanding, dialogic reflection infers that the student has a dialogue with their self and explores possible reasons for their statements. Finally critical reflection is evidenced by justification for decisions or events which take account of the broader

historical, social and/or political contexts (Hatton & Smith, 1995). They are placed in the above order to indicate a perceived developmental sequence (Kagan, 1992 cited in Hatton & Smith, 1995).

Table 1: The four operational aspects of reflection

Descriptive (non-reflective)	Descriptive reflection	Dialogic reflection	Critical reflection
Rote reporting of facts	Limited justification	“Stepping back” from events and actions	Awareness of multiple perspectives, historical, and socio-political contexts
Simplistic descriptions of events and literature	Consideration of alternative viewpoints	Different levels of discourse with self, events, and actions	Logical interpretation of events and actions based on theory and practice
No discussions beyond descriptions	Reflection based on personal perspectives or rationales	Use of judgments and possible alternatives for explaining and hypothesizing Reflection is analytical or integrative, linking different factors and perspectives	Argument evaluation of personal and external factors and perspectives

Source: Hatton and Smith (1995)

Critical reflection in WIL

The benefits of WIL as a learning environment for students are well documented (Brown, 2002; Murphy & Calway, 2006; Patrick *et al.* 2008; Weisz & Smith, 2005). However the experience of working in itself is not enough to produce transformed learning; rather learning in work placements needs to be organised, deliberate and intentional (Harvey *et al.*, 1998; Orrell, 2004; Washbourn, 1996). Critical reflection is commonly associated with WIL either as a learning tool and/or a form of assessment in an effort to improve learning outcomes. The importance of critical reflection in WIL was noted by Smith and Betts (2000, p. 597) who claim that the “quality of learning is not dependent on the quality of the experience, but on the quality of the process of reflection in relation to the agreed learning outcomes”.

As noted earlier, critical reflection skills are not believed to be inherent. Russell (2005) argues that the ability to engage in reflective practice cannot be assumed and must be taught. To enable effective learning in WIL students must be given explicit instruction on reflective practice (McNamara & Field, 2007). Carson and Fisher (2006) argue that providing additional teaching and learning strategies such as providing explicit theoretical frameworks, incorporating critical reflective expectations in assessment criteria and modelling critical reflection results in an increased capacity for students to critically reflect in WIL environments.

Methodology

This project is qualitative and exploratory in nature. Given that the investigation sought to identify issues and gain a preliminary understanding of the situation an exploratory study was the most appropriate approach (Sekaran 2003). In regards to evaluating the ability of undergraduate tourism and hospitality students to critically reflect prior to their internship placement three methods of data collection were used. These included:

An analysis of the Unit Information Guide (UIG) including the assessment guidelines and associated teaching resources from PDW in semester 2, 2008

focus group interviews with consenting students (in accordance with SCU's ethical provisions) who had completed the Professional Development Plan (PDP) assessment in semester 2, 2008; and
an analysis of past PDP assessments completed by the focus group participants.

In order to analyse the written instructions that were issued relating to the need for critical reflection in the PDP assessment, the UIG and assessment guidelines were reviewed. Additionally, PowerPoint slides from all teaching sessions were reviewed to ascertain what written instructions were issued in class, and to prompt reflection by the teacher/author of this paper of any verbal instruction that was provided regarding critical reflection requirements. Focus group interviews were used to determine the students' understanding of the concept of critical reflection in relation to the PDP assessment, and also feedback about the unit in general. In total 12 students were interviewed. Following the focus groups the participants' Professional Development Plans were analysed using Hatton and Smith's (1995) typology of reflection as noted above. The assignments were assessed for the most complex form of reflective writing evident. Quantity of reflection; that is the number of times reflective writing was apparent was not noted.

Additionally, to evaluate the extent to which the graduate attribute of critical reflection is fostered throughout the Bachelor of Business in Hotel and Resort Management, UIGs for the core units offered in 2009 were analysed for the presence of the terms *critical reflection*, *reflective practice*, and *reflective in practice*. The presence of these terms was depicted in the following categories: graduate attribute, unit objective, skill, assessment item details. The limitation of this data collection was the lack of consultation with staff involved in the design and delivery of the BHRM curriculum, including academics who may actively foster the development of critical reflection through their teaching strategies, without making such activity explicit in the UIG. Whilst this limitation was recognised, the data collection that was undertaken was deemed sufficient for this preliminary stage of the exploratory study. Further justification of the data collection parameters is provided by the claim that "paying attention to the *assessment* of graduate attributes is critical since, as Ramsden (2003) and Biggs and Tang (2007), amongst others have pointed out, it is assessment that actually defines the curriculum and drives student and staff behaviour" (Radloff *et al.*, 2008, p. 2).

Results

Analysis of UIG/assessment guidelines

An analysis of the UIG and the assessment guidelines (SCU, 2009a) identified that the skill of critical reflection is referred to on seven occasions, as noted below with emphasis added. An objective of the unit overall is for students to *critically reflect* on their current life-career situation and prepare a professional development plan for the future. One of the graduate attributes is noted as being lifelong independent learners, *reflective in practice*, and information literate. *Reflective*

practice is a skill that the unit aims to develop. Specifically with regard to the PDP the assessment guidelines instruct the students to identify five goals relating to their career success and critically reflect on how and why each goal is important to them. Furthermore, the marking criteria states that to gain an overall grade of Satisfied Requirements a list of criteria must be satisfied, including the need for students to critically reflect on their personality in relation to career choices. Whilst the assessment criteria is very explicit in terms of what each section of the report (of which there are two subsections which students should demonstrate critical reflection) should contain, there are no directions as to how to *do* critical reflection or what this term means.

The review of PowerPoint slides from all teaching sessions revealed no written reference was made to students with regard to critical reflection or the assessments in general. The notes on the PowerPoint slides, which are not visible to the students, prompted the researcher's recollection that during the teaching period the students were advised verbally about the need to demonstrate critical reflection in their PDPs. The notes indicate the following text, 'you need to think about yourself (what sort of person you are and what drives you) and think about how this makes you suitable to your chosen sector. In the Goals section – you need a SMART (Specific, Measurable, Attainable, Realistic and Time Bound) statement followed by a paragraph justifying why this is important to you'.

Focus group interviews

The participants of the focus groups were encouraged to discuss a number of topics relating to the PDW unit overall, and more specifically regarding critical reflection in the PDP. The general reaction from the students was uncertainty about the meaning of the term critical reflection. Comments to the question 'What does critical reflection mean to you?' included:

- I don't know the difference between critical thinking and critical reflection
- to go deeper with my writing
- to think about different perspectives
- to question
- contrasting
- would be good to use examples from past papers
- the MBTI Program to help give some insight into yourself was beneficial (this refers to an in-class computer based activity incorporating a Myers Briggs Type Indicator personality assessment).
- look at both good and bad sides
- chance to think about things – in daily life we are too busy to do this
- what did we do, what did I get from this
- activities – MBTI & SAL helpful to guide reflection (again this student is referring to online resources recommended for students to gain insights into their personalities)
- think about past and future use
- using theories
- different to critical thinking but I can't say how
- do this when we need to make to a choice
- hard to write about yourself

Past assessment analysis

Twelve students participated in the focus group interviews. From the semester 2, 2008 cohort 49 students submitted the PDP. Ten students were asked to resubmit this assessment. All students who

participated in the focus groups Satisfied Requirements for this assessment item initially so therefore were not required to resubmit. The twelve focus group participants' PDPs were analysed using Hatton and Smith's (1995) reflection typology. Each level of the typology is indicated below together with the number of students who achieved a particular level as their deepest level of reflection. Examples of statements from the students' assignments which demonstrate the level of reflection are provided. The students' names are not presented in order to preserve anonymity.

Descriptive (non-reflective)

Five assignments demonstrated descriptive writing only with no element of reflection.

Excerpts (descriptive):

Emotions play a role in my professional life, mainly in empathy for my patrons and guests. But also, my general happiness and wellbeing affects the emotions I experience while working. Although this is not ideal, it is simply a fact of life.

Descriptive Reflection

Two assignments demonstrated descriptive reflection, whereby one's personal thoughts were mentioned as well as facts.

Excerpt (descriptive reflection):

When assessing my EI [Emotional intelligence] it was ascertained through Robbins et al. (2008) Self Assessment tests that my EI score was 38 out of 50. A score of 40 was considered a high EQ so it can be assumed that my EI levels were moderate to high. Evaluated by Robbins et al. (2008) this means that I could evaluate other emotions, know my own emotions and read social situations well. Robbins et al. (2008) show that individuals in one firm who score above average in an EI test earned \$1.2 million more than their [sic] partners who had below average EI levels. I concur that high EI skills would be warranted and valued in Ecotourism as not only could one relate better to their peers or employees they would be able to recognise emotional cues and identify people's agendas, needs and requirements.

Dialogic Reflection

Five assignments demonstrated dialogic reflection. As per the Hatton & Smith's (1995) typology these students demonstrated a 'stepping back' from the experience and their reflection demonstrated greater analysis and consideration of alternatives.

Excerpts (dialogic reflection):

I believe that everyone plays the political power game and to succeed to a certain point in your career must play the game well, as it is a part of life and involved in everything we do. As I will initially be an intern I am prepared to act at first as a committed/compliant subordinate until I settle in and gain some of my own power and influence as described in the 'Yukl Analysis', as I will be bottom of the organisational ladder to begin (Rollinson 2005). I think these values definitely reflect the kind of person that I am both at work and uni [sic] and also life in general.

Critical reflection

There were no students who participated in the focus groups that demonstrated critical reflection in their PDP, whereby there was a contextual consideration and multiple perspectives were discussed.

Curriculum analysis of BHRM core units

The following matrix outlines which units identified the terms critical reflection, reflective practice, or reflective in practice in the respective UIGs. As can be noted eleven of the sixteen core units listed reflection as a graduate attribute. The specific wording of the relevant graduate attribute adopted by the School of Tourism and Hospitality Management is to “*be lifelong independent learners, reflective in practice, and information literate*” (SCU 2009b). Only 5 of the sixteen units (Professional Development for the Workplace (PDW) and the four Intern Study units) noted reflective practice as a specific skill. Additionally, the PDW unit and the Intern Study units were the only core units in the BHRM to refer to critical reflection, reflective practice, or reflective in practice in the assessment details section of the UIGs.

Self reflection by the author and an interview with another staff member involved with the teaching of the PDW unit and the Intern Study units highlighted what teaching activities were used to facilitate the development of critical reflection as a graduate attribute. In the PDW unit students are guided to use a critical thinking model contained in one of the set readings to assist them to complete a section of the Professional Development Plan (the major assessment item). Critical reflection is not a syllabus topic, but the benefits of this skill are highlighted when discussing experiential learning and lifelong learning in relation to career development and internship opportunities. Whilst the model has elements consistent with Mezirow’s definition of critical reflection, the model stipulates that it refers to critical *thinking* as opposed to critical *reflection*. The Intern Study units’ assessments include details of reflective models which can be used to guide reflective writing which is required for two assessment items.

Table 2: Units referring to critical reflection, reflective practice, or reflective in practice in the Unit Information Guide

	Graduate Attribute	Unit Objective	Skills	Assessment
First Year Core Units				
Communication in Organisations - COM00207	✓			
Tourism Theories and Practices – SOY00411	✓			
Introduction to Tourism and Hospitality Management – MNG00440				
Introduction to Tourism and Hospitality Marketing – MKT00127				
Human Resource Management in the Tourism and Hospitality Industry – MNG01413				
Financial Information for Decision Making – ACC10249				
Hospitality Services Management – MNG00441				
Tourism and Hospitality Research and Analysis – MNG00415	✓			
2nd/3rd Year Core Units				
Business Law and Ethics for Tourism and Hospitality – LAW00203	✓			
Professional Development for the Workplace MNG10476	✓	✓	✓	✓
Strategic Management for Tourism and Hospitality Enterprises – MNG00417	✓			
Economic Analysis for Tourism and Hospitality – ECO00424	✓			
Intern Study I-IV - MKT01221-4	✓		✓	✓

Discussion

It is evident from the literature review that critical reflection is a desirable attribute for university graduates. Specifically, it is believed to be an attribute required by tourism and hospitality university graduates in order to successfully function in a turbulent and changing society. This was an exploratory study with a limited number of participants. Nevertheless the findings have indicated that whilst an assessment item in the internship preparation unit required evidence of critical reflection most students were unclear about the meaning of this term, and no student achieved a level of reflection that would be described as *critical reflection*. Whilst the need for critical reflection was documented in the assessment guidelines, no written or verbal instructions were issued in regard to the meaning of the term, the process required, or the parameters of how this skill would be assessed.

Given that most students would not have been required to demonstrate critical reflection in an academic assessment prior to the PDP, the findings are consistent with the claim that critical reflection skills are not inherent (Cunliffe, 2004; Fisher, 2003). The students in the investigation were not taught how to critically reflect in this unit of study, and the findings would suggest that the skill had not been fostered in previous study. Whilst many core units in the BHRM recognise the

importance of reflective practice and include it as a graduate attribute in the UIG it appears that few units align the graduate attribute specific to reflective practice with related intended learning outcomes and assessment tasks. However, the wording of the actual graduate attribute is problematic in terms of making such connections. It may be that the unit assessors who have articulated the identified graduate attribute in the UIGs are selecting this statement for the 'information literacy' component and not necessarily for the reflective practice component.

Carson and Fisher (2006) noted that despite the emphasis in the literature of the negatives and challenges associated with students undertaking critical reflection, there is little guidance about how to teach the skill, and little written about how students actually approach the task of critical reflection. Encouragingly, whilst not inherent or natural for many individuals, the skill of critical reflection can be taught (Cunliffe, 2004; Fisher, 2003; Hatton & Smith, 1995). Whilst reflection is noted by Fisher (2009) as an internal process, it can be assisted through interaction with others, particularly those with different perspectives from our own. Fisher (2003) argues that the capacity for critical reflection can be improved by offering clear guidance on what is required, giving feedback; and modelling critical reflection throughout the study program.

Whilst the PDW unit attempted to assess students' evidence of critical reflection in preparation for their internship, it could be argued that structured and explicit teaching activities or instruction were not delivered. The difficulties in teaching and assessing critical reflection have been discussed (Fisher, 2003; Johns & Henwood, 2009; and Plack *et al.*, 2005), however with increasing recognition of the importance of graduate attributes it is timely to consider how to implement these aspects of curriculum development into the BHRM. In light of the findings it is proposed that Professional Development for the Workplace be the identified unit in the BHRM where the graduate attribute of critical reflection is actively embedded into the curriculum. Given that critical reflection is recognised as a higher order cognitive skill, the placement of the PDW unit in the degree structure as a second year / second session core is optimal. Furthermore, it is desirable for students to begin developing critical reflection as a skill prior to the core Intern Study units so as to maximise their learning outcomes.

Conclusion

The paper documents how an analysis of an internship preparation unit reinforced the importance of critical reflection as a graduate attribute for tourism and hospitality management students, and the role that WIL can play in fostering the development of this industry desirable attribute. The paper highlights the need to challenge our assumptions of our students' ability to critically reflect and consequently (re)assess current teaching and assessment practices regarding WIL and identify areas for improvement. Fostering the development of this graduate attribute is supported by the belief that it is a teacher's duty to 'develop in students a strong spirit of enquiry that will support a commitment to life long learning' (Lashley 2004, p. 66). Accordingly, the author of this report and current unit assessor for the PDW unit, will strive to improve teaching and learning strategies that actively facilitate the development of critical reflection as a graduate attribute. Largely this will be through providing explicit theoretical frameworks, incorporating critical reflective expectations in assessment criteria and modelling critical reflection. Given the importance of critical reflection in WIL environments these changes need to occur in the internship preparation unit and then be reinforced in the internship so students can maximise their learning opportunities during their WIL placement.

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Encouraging student voice: Bachelor of Exercise Science students' design of a work-integrated learning subject

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Work integrated learning (WIL) is increasingly more evident in higher education programs throughout Australia, as it offers valuable experiences for students by providing them with opportunities to translate theory to practice and, as they assume increasing responsibility in the workplace, transition from student to professional practitioner. The benefits of WIL are well documented and attest to preparing *work-ready* graduates by developing both generic and explicit career skills that position them positively to gain future employment. The purpose of this research was to investigate the nature and degree of support required by Bachelor of Exercise Science students to successfully undertake a WIL action research project in blended mode, during a 360 hour professional placement. Using semi-structured telephone interviews, students who have completed the subject in its prior format, were invited to *design* structures and systems that, in their view, would scaffold their learning and aid in their completion of the WIL subject assessment requirements. Participant data revealed three emerging themes of support: i) organisational, ii) pedagogical, and iii) interpersonal. In response to the research results, an online learning environment has been created that will developmentally scaffold student learning, assist them to participate as emerging professionals in the exercise science occupational cultural community and, successfully action their disciplinary, practical, interpersonal and reflective knowledge in authentic professional contexts.

Keywords: action research, authentic assessment, problem based learning, professional partnerships

Background and Context

Work integrated learning (WIL) provides invaluable experiences for students as it bridges the gap between theory and practice. It offers opportunities for students to apply, rehearse and refine the conceptual understandings gained in the university classroom in the reality of the dynamic and complex professional context (Clifford, et al, 2005).

Charles Sturt University (CSU) has badged itself as a university for the professions. According to the Vice Chancellor of CSU, the university is “priding itself on providing practical, employment-focused courses that ensure students graduate with the attributes and workplace skills required to step confidently into new employment opportunities” (Goulter, 2008, p. 1). To align with this vision, CSU’s Bachelor of Exercise Science students are provided with the opportunity to accumulate 500 hours of WIL to assist in gaining professional accreditation with Exercise and Sports Science Australia (ESSA). The Bachelor of Exercise Science is a three year program designed to prepare undergraduates for careers in areas such as exercise physiology, rehabilitation, fitness, psychology, and health promotion.

The WIL requirements of this course are divided between two sequentially, scaffolded professional placement subjects requiring 140 hours and 360 hours of work integrated learning respectively.

Prior to the 2009 subject review, the assessment in the final year subject: a reflective report; lacked academic rigour for the university, authenticity for the student and tangible outcomes for the professional partner. In an effort to enhance student learning outcomes and nurture a productive and symbiotic relationship between CSU and exercise science related industry partners, the subject outcomes, syllabus and subsequent assessments were redesigned and constructively aligned (Biggs, 1998). The new subject titled “Work Integrated Learning Project in Exercise Science” now adopts the theoretical frameworks of problem based learning and action research (Kemmis & McTaggart, 1998).

In response to the aforementioned changes, during their 360 hours of professional placement, students are now required to complete a WIL project involving the design, implementation and evaluation of an action research assessment that has identifiable benefits for stakeholders in an industry/university partnership. This experience aims to assist students to fully participate as emerging professionals in the exercise science occupational cultural community (Lave & Wenger, 1991). This is achieved by investigating the operational requirements of the industry, assuming multiple roles and responsibilities, adopting ethical practice, and integrating their disciplinary, practical, interpersonal and reflective knowledge in authentic professional contexts (Clarke & Burgess, 2009). The subject further provides opportunities for students to articulate their personal and professional suitability for employment in the fields relating to exercise science. As the subject is to be presented in blended mode, which was constituted by on-line learning and professional placement experiences, and during the summer session in 2010, the student cohort was consulted to inform the subject design and the support structures and systems needed to scaffold the demonstration of their achievement of the subject outcomes. Therefore, the aim of the research was to determine the nature and degree of support required by Bachelor of Exercise Science students undertaking the Work-Integrated Learning project subject by blended mode.

Literature

Work integrated learning (WIL) was defined by the National Commission for Cooperative Education, as:

... a structured educational strategy integrating classroom studies with learning through productive work experiences in a field related to a student’s academic or career goals. It provides progressive experience in integrating theory and practice. It is a partnership among students, educational institutions and employers, with specified responsibilities for each party (Groenewald, 2005, p. 17).

Australian universities are increasingly providing students with opportunities to participate in curricula that include WIL components. Billett (2001, p. 424) suggests that “social situations – such as workplaces – are not just one-off sources of learning and knowing. Instead, they constitute environments in which knowing and learning are co-constructed through on-going and reciprocal processes”. Authentic and real world experiences that form part of a WIL program are an integral component of curricula and provide opportunities for students to apply theoretical knowledge, develop skills, reflect on practice, and develop an understanding of the relevant professions. These types of programs further develop the skills and abilities of the students, supporting them to engage in deeper learning (Bates, 2003). WIL experiences should assist the transition from student to practitioner by improving students’ disciplinary knowledge and by exposing them to the practicalities of knowledge application to a real world context (Crebert, 1995). WIL provides students with the opportunity to develop those skills that their profession identifies as critical for success. At the conclusion of their professional placements, students should have an understanding

of workplace practices, experience in applying the theoretical knowledge developed during their degrees to work within their profession, and skills and professional contacts to help them when seeking graduate employment. WIL also provides students with the opportunity to develop maturity and responsibility as they make the evolution from the role of student to professional (Trigwell & Reid, 1998). Students receive an education that is more valuable because it includes the perspective of both educators and employers.

While the benefits of WIL are numerous and well documented in the literature, the forming of positive professional partnerships and development of well-designed curricula continue to remain a challenge for universities. A central challenge for the development of WIL programs is to consider what it means to create quality WIL. Quality is dependent on the reciprocity of three essential stakeholders: the tertiary student; the professional partner; and the university staff. The effectiveness of the outcomes of WIL is highly dependent on the planning for, and implementation and evaluation of, the WIL experience. Therefore, WIL that is intentional, organised, recognised and accredited by a university can provide powerful learning experiences for students.

Research Design

The study adopted a qualitative case study approach (Yin, 2003) to investigate what support students require to assist them to undertake the WIL Project. Thirty minute, semi-structured telephone interviews were conducted by the subject coordinator with seven students from a cohort of 41 who had satisfactorily completed the subject in the previous semester. These interviews were digitally recorded via speaker phone and an MP3 device. This sample of students was purposively selected as they had recent, first-hand experience of the existing professional placement requirements of the subject in its previous format, and had a diverse standard of academic achievements in this subject. Participants' interest in and willingness to be involved in the research was gauged by a research assistant initially telephoning students using contact details gained through the CSU student database (CSU Human Research Ethics Committee: Approval number 2010/024). Students were provided with an Information sheet and consent form to complete and provided with time to consider their participation in the research. The interview questions gathered demographic information, as well as data relating to the nature of students' previous professional placements, their perceptions of the level of support offered by their professional placement supervisors, the range of occupational experiences in which they were engaged, the alignment between the subject's assessment tasks and the professional placement expectations and opportunities, and their suggestions regarding the design of the assessment task (WIL project). Data were analysed by each individual in the research team using intra- and inter-textual analysis (Maykut & Morehouse, 1994) and results compared. Three broad themes were apparent from the data analysis with each divided into sub-themes which are reported below.

Results

The three broad themes which emerged from the interview data related to the *nature* and *degree* of support required by students to complete the WIL Project: i) organisational support, ii) pedagogical support and; iii) interpersonal support.

Organisational support

Despite the sample size (n=7), students had participated in a breadth of professional experiences including instructing fitness classes, designing training programs for elite athletes, preparing lectures and seminars for talent identification camps, creating health promotion activities, completing sports administration and assisting an exercise physiologist. In relation to the design of the new subject, students suggested being supported to source and select their placements using the online modules. The participants suggested that these modules should cater for all types of professional placements by modelling relevant examples.

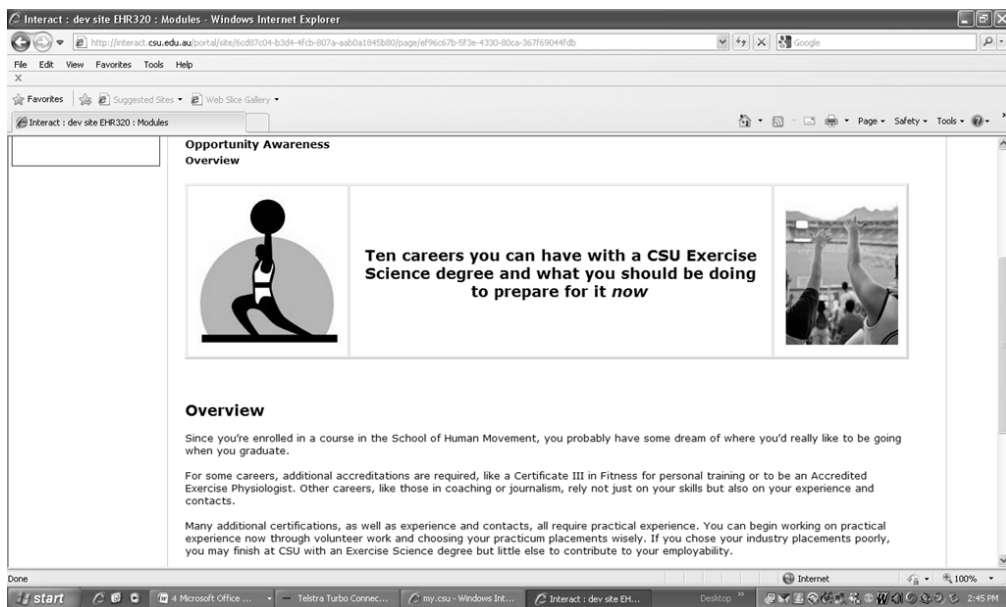
I think a bit more of an in-depth explanation of what you could do at all the places would be better because it's all well and good to say, you know you can do it with an exercise physiologist or at a gym, but what does that mean ... you don't know what you'll be expected to (P1).

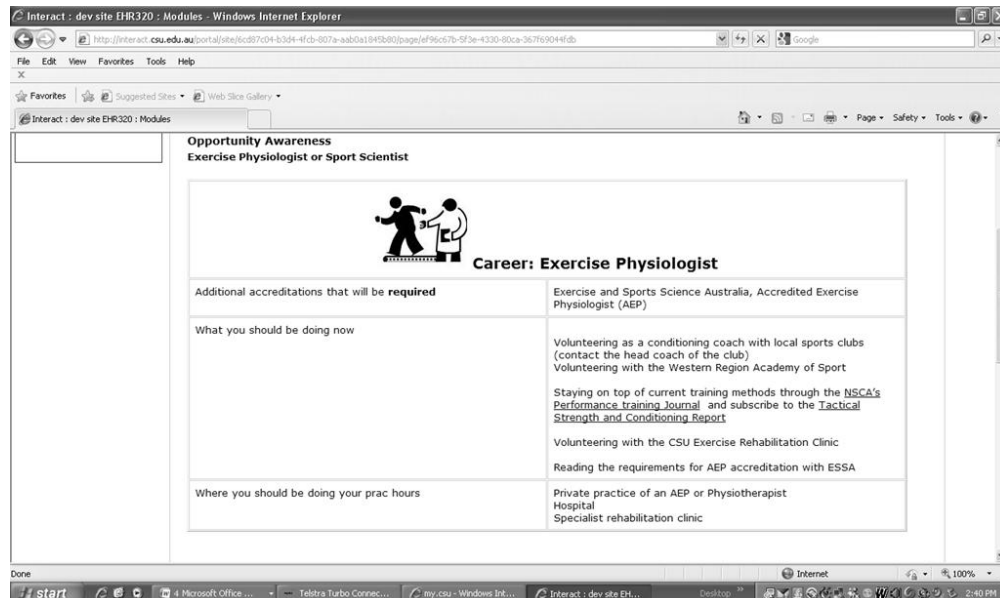
Some instructions to say this is what it is and this is how should you go about setting your placement up (P2).

I think just in terms of finding information out about employers. I mean a lot of people come to the subject with not too much of an idea and I think maybe a class at the start of the semester sort of explaining your opportunities out there and even a bit of a research task into what you might want to do so that you're not just going to the local gym that's convenient but actually doing something that's going to be really worthwhile (P3).

In response to students' feedback an online learning module was created that outlined the diversity of placement possibilities, described the nature of the professional activities that might be encountered during the placement, and explained the accreditation requirements. Figure 1 is an example of two screen captures from this module:

Figure 1: Creating awareness of potential placement opportunities and their requirements





An organisational issue of concern was raised by the participants relating to the accreditation requirements of ESSA. To gain accreditation as an Exercise Physiologist students are required to undertake 140 hours of professional placement with “healthy populations” and 360 hours with clients identified as members of “other populations” including clients with musculo-skeletal, cardiovascular, and respiratory illnesses (ESSA). While students acknowledged the ease of accessing placements with healthy populations they remarked:

It would be pretty easy to find yourself the healthy hours. I think a few of them [students] are going to struggle to find the 360 hours as everyone’s trying to find placements for the non healthy population hours... so I think the uni needs to help find places (P2).

In response to this participant feedback, the subject coordinator, who is also the coordinator of professional placement, has created an online database of professional placement contexts that fulfil the requirements of ESSA accreditation. This database will be placed online so students can gain an awareness of and select from a broad range of placements.

Participants recognised the benefits of the increase in hours to be completed during the WIL Project. Several of the research participants commented on the effect of the 500 hour requirement on their knowledge of the discipline, their confidence levels, and their relationships with the professional partners.

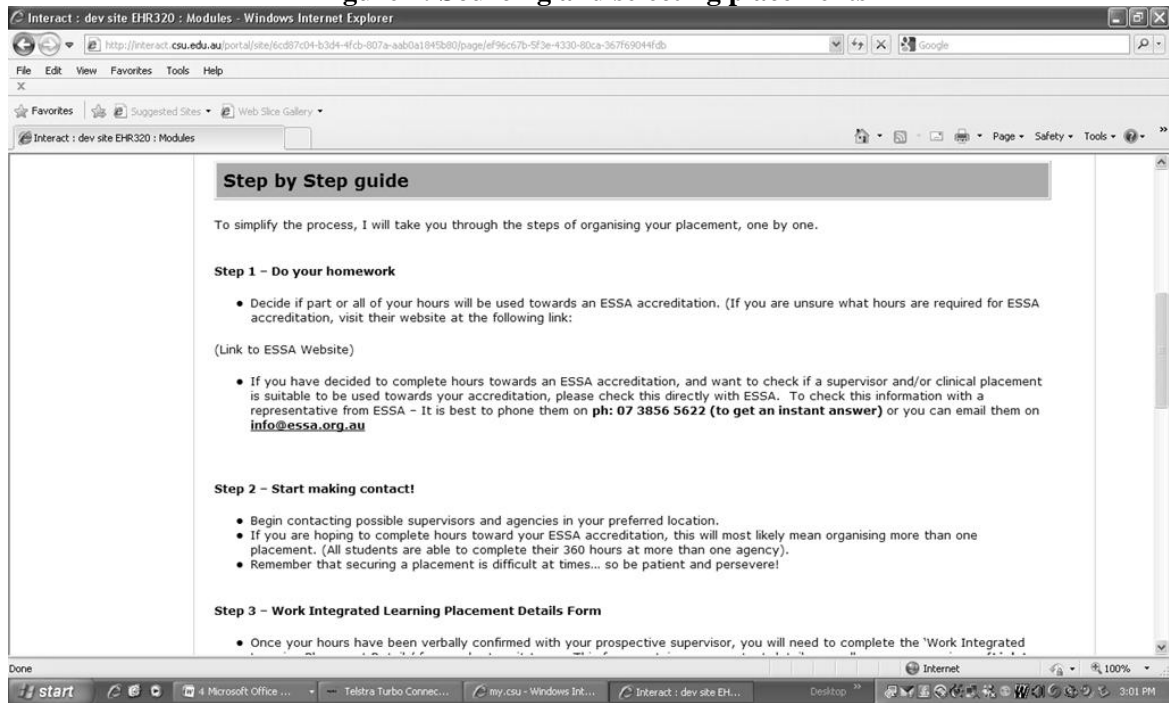
Some people might not feel as confident as me and 500 hours working you know could be the difference between them being confident or not being confident (P7).

I think we need to be aware of our ESSA hours. I know that we were told about them but... actually say the benefits of it and the fact that you cannot become a proper exercise physiologist without these 500 hours. A lot of people aren’t aware of that (P4).

I think the increase in hours is really important because you build a better relationship and interaction with your supervisor and especially being in third year; it's your final year, it's so important to have a really good relationship with them because you could have them for referees when you're actually out there applying for jobs so it's beneficial (P3).

Figure 2 showcases a screen capture from the online learning module to guide students in their sourcing and selection of professional placements.

Figure 2: Sourcing and selecting placements



Timing of the placement

The accreditation body for exercise physiologists: Exercise Sports Science Australia (ESSA); has recently prescribed explicit requirements for professionals seeking to be Accredited Exercise Physiologists. Given these requirements, the WIL Project in Exercise Science subject has been offered in the summer session by blended mode. These organisational decisions provide students with the opportunity to complete sufficient hours in the prescribed areas for ESSA accreditation. The research sample acknowledged the benefits of the positioning of the subject in summer session as identified below:

Creates more time over the summer and we are able to do all the hours. There's more hours if they weren't sure what they wanted to do they'd be able to do it at a few different places and get a better experience at each one (P6).

Now it's in summer from an organisational perspective I think that people can travel to Sydney and work in a clinical setting to get the right amount of hours rather than just go to gyms in the local area because we have other subjects on at the same time at uni (P5).

The main thing really is more just availability of placements and enough time to be able to do the placement (P4).

The participants did however identify potential barriers to positioning the WIL Project in the summer session and selecting a placement away from their home/university town:

It will be hard for some students because some students work and they have to do their hours in the holidays and more hours mean they work less which would decrease their standard of living while they're at university because they've got less money (P4).

Like for people who had to travel long distances maybe the uni could help out there. Students could have an opportunity to apply for a scholarship ... they could get a couple of dollars for living costs (P7).

I think we need information about scholarships especially if it's going to be over the summer. I wouldn't be able to do it at home because there are no resources to do anything at home and because I am rural and remote, the closest town is five hours away. I would need support with being able to talk to you while I'm there and accommodation (P1).

The research team has acknowledged the barrier to selecting a placement away from casual work commitments and accommodation and have created opportunities for students to access a WIL scholarship.

Pedagogical support

Research participants identified an array of pedagogical considerations for designing the on-line learning environment to support the design, implementation and evaluation of the WIL Project.

Career planning

Research indicates that students find that most of their learning while on placement occurs in non-theoretical areas such as correction of misconceptions about workplace 'reality', new skills, time management, development of self-confidence and an increased awareness of career options (Cates & Jones, 1999). WIL experiences allow students to learn about career options, explore their abilities and determine their strengths and weaknesses. Participants in this study identified the need to increase their knowledge of the range of future employment opportunities available and how to access those that would replicate the authenticity of duties undertaken in their future careers.

Maybe a bit more information on what jobs are available at the end, because that's sort of third year stuff so everyone is looking towards that (P2).

If we went through a run down of the specific jobs that we could be doing when we graduate and I guess a few dot points on what the job entails, that would target the final year a bit better (P5).

I think doing a placement that shows you what you'll be doing in your future is worthwhile (P6).

In addition, participants requested that the subject requirements allow them to accumulate accreditation hours in multiple professional contexts.

I guess let me get a feel of which area I wanted to be in ... I did Sports Development, marketing and promotions and because I was working in Operations it was really helpful (P3).

An online module has been developed on career planning. The aim of this module is to assist students to develop an awareness of employment opportunities and support their ability to prepare job applications and participate in interviews. Figure 3 is an example of a learning sequence from this module.

Figure 3: Module 3 – The Job Application Process



Scaffolding

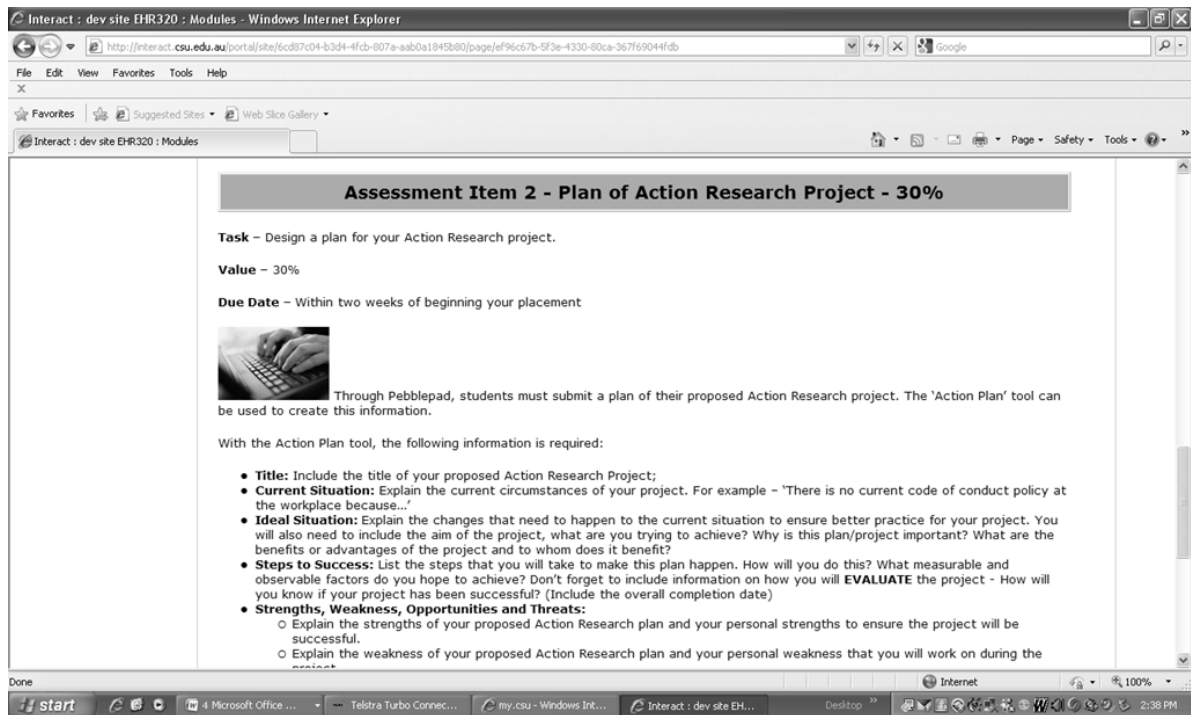
As the subject was to be facilitated by blended mode, participants suggested the need for a step-by-step process to assist them to design their project:

A step-by-step process will be needed because otherwise online you'd read it and you'd go now how do I do that (P1).

A step-by-step way of them [students] actually designing their project so instead of just saying you need this information ... just help them out in actually designing what to do (P4).

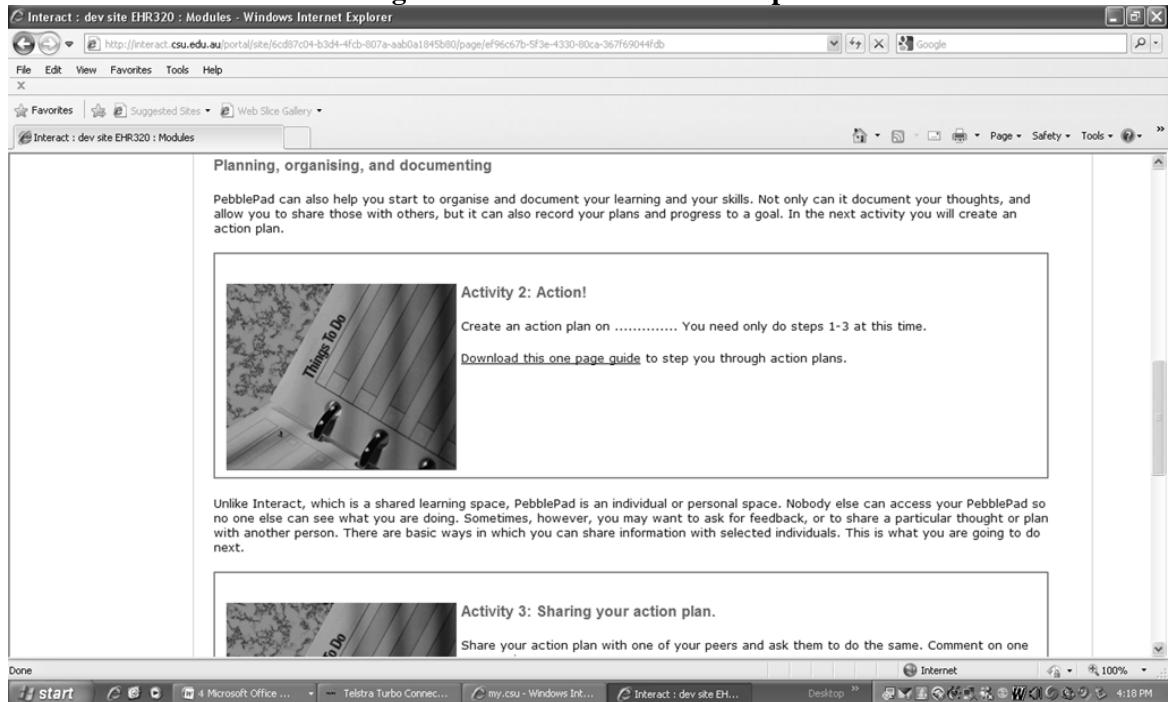
To scaffold students' design of the WIL Project, Pebblepad (an online folio tool) will be the pedagogical tool used in the subject. Pebblepad provides students with a sequentially progressive pathway for the development of an action plan. Figure 4 outlines the requirements of Assessment Two of the subject which is to be completed using the Pebblepad action plan tool.

Figure 4: Assessment requirements



In order to further scaffold student learning an online module has been created that steps students through the process of creating and sharing a Pebblepad action plan. The research participants suggested that as well as being supported to design their WIL Project that “we would also need to learn how to use the online tools that are new to us” (P4). Figure 5 displays the introduction to Pebblepad module.

Figure 5: Introduction to Pebblepad

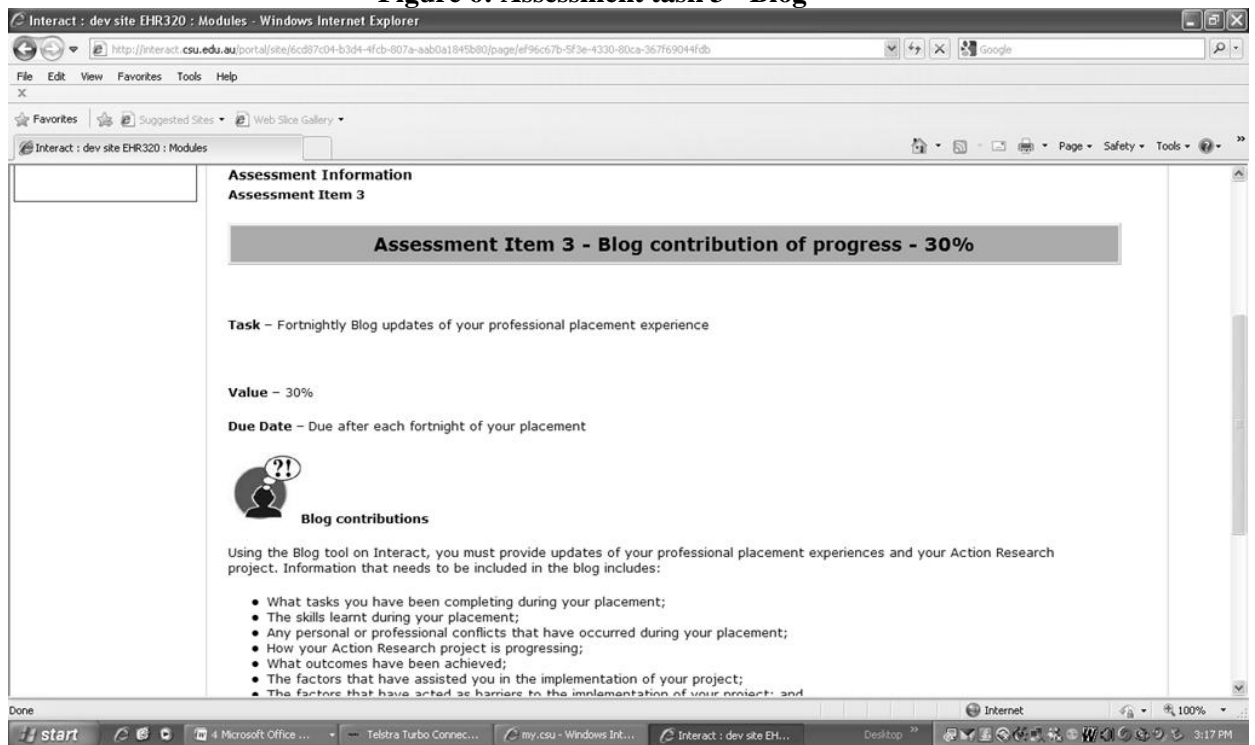


To further support students formulating a WIL Project which is of value to the professional partner and has the potential to succeed, Pebblepad allows the subject coordinator to provide instant online feedback on the action plan, once submitted through the system’s gateway. This will allow students to obtain timely and detailed feedback before implementing their WIL Project and assist in allaying their concerns regarding “what to do and how to do it” (P7).

Reflective practice

For WIL experiences to ensure quality, reflection needs to be continuous in nature, timely, derived from a variety of sources, an invited requirement, assessable, and valued as a tool to assist in the improvement of future practice (Clarke & Burgess, 2009). These descriptors of reflection are evidenced in the learning design of the WIL Project. Opportunities for meaningful reflection have been embedded in the assessment requirements of the subject. Assessment Three requires student to prepare and post a fortnightly blog within the Pebblepad learning environment that provides considered comments on the i) tasks undertaken, ii) skills developed, rehearsed and refined, iii) episodes requiring conflict resolution, iv) status of the WIL Project outcomes, and v) factors that have facilitated and constrained the project’s progress. These reflections WILL be monitored regularly by the subject coordinator in an effort to provide ongoing support for the student and to evaluate their progress. Figure 6 indicates the requirements of the assessment task and showcases the scaffolded nature of developing students’ ability to reflect through the use of guided questions.

Figure 6: Assessment task 3 - Blog



Participants in the research sample provided positive support for the use of the blog tool:

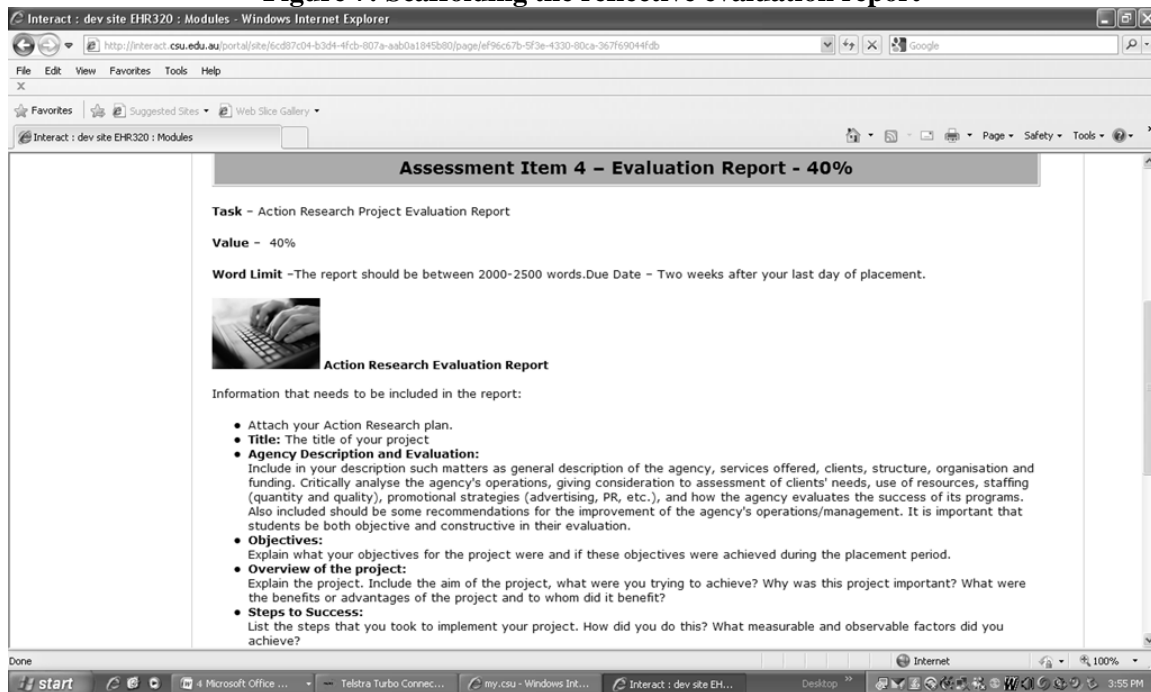
It’s good in the way that you can remember what you’ve done each day otherwise you would just forget. It would be useful to use later when you are going for jobs so you can say I did this at a placement (P1).

It's a good chance ... if you write everything down after you do it to reflect over what you've done (P7).

Yeah I like that idea ... today I learnt this or I think this is really important for me to remember (P2).

Data from the interviews suggested that students were aware of the need to reflect on their overall success in the WIL Project. As part of the action research cycle (Kemmis & McTaggart, 1998) students are required to prepare a 2000-2500 word evaluation report that fully details the insights gained from designing and implementing their WIL Project. Figure 7 is a screen capture of the requirements of the evaluative report.

Figure 7: Scaffolding the reflective evaluation report



On-line learning

The sample of participants strongly acknowledged supporting their learning through the use of online learning opportunities. They recognised the authenticity of these modes of information and communication technology as preparation for their future professional workplace, as well as providing the opportunity for students to work asynchronously.

I think definitely that's the way things are going. Everything's done online now, even between companies. Emails are sent and teleconferences, on line conferencing so I think that will prepare us in this subject, it'll prepare me better for after I finish and enter the workplace (P3).

It [online learning] does give a little bit more freedom, you are not locked into the classes and I suppose it would give you more time to do the hours (P2).

I guess that you can do it in your own time and not kind of be rushed (P1).

They [online learning modules] are good because they [students] don't get face to face but we can do it in our own time, do it over the weekend ... and you can go at your own pace (P4).

Participants however pointed to several potential constraints of online learning that they felt would impede their participation in and completion of the WIL Project:

If there's a class you know you should be there ... but with the online you don't really know what pace everyone else is working at (P1).

I think a limitation of online learning is that you're by yourself ... no motivation. I just prefer to have someone to bounce things off (P1).

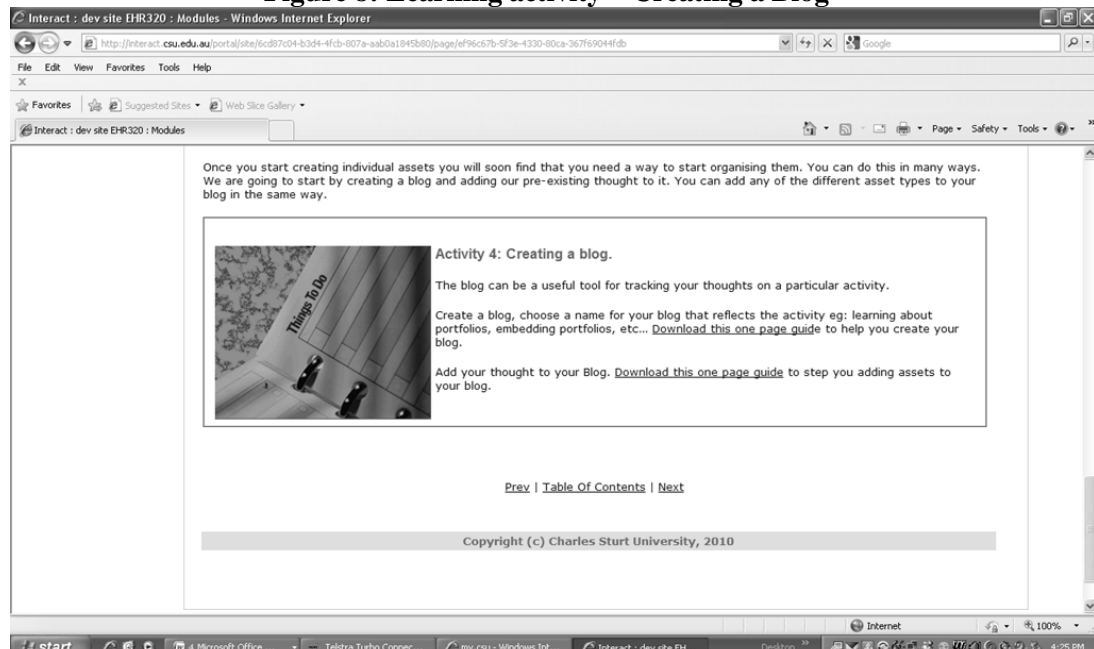
If you've got a question it's harder to ask a question [online] (P4).

You don't have one-on-one time with your lecturers which is pretty important ... they can explain things that you can not understand by reading it on the computer (P7).

In direct response to these student concerns, the online learning environment will be supported by a subject forum on which students post questions and comments to be responded to by the both their peers and the subject coordinator. Additionally wikis WILL be created through which groups of students participating in similar professional placements (e.g. fitness instruction) can share their experiences, fears, concerns and solutions to problems.

Participants in the research sample also flagged the importance of re-learning how to navigate the online learning environment and adopt the use of several new tools. In response to student voice: "We used the blog in Applied Psych but I think I forget what to do" (P6); the researchers have created a module that provides students with a step by step guide to engaging with the blog tool. Figure 8 provides an example of a learning activity that reacquaints students with the use of the blog tool in the online learning environment.

Figure 8: Learning activity – Creating a Blog



Interpersonal support

Two key issues were coded within the theme of interpersonal support: i) the need for the subject coordinator to monitor student progress because of the blended learning environment, which was new to students; and ii) the desire to align the students' learning objectives and career aspirations with those of the potential placement partner.

Monitoring student progress

Despite the willingness to engage in online learning environments, the participants still voiced the need for regular monitoring of their progress, some even suggesting face-to-face meetings midway through semester. Evaluating student progress will be undertaken using the blog tool in Pebblepad, as well as providing scheduled times throughout the Project for students to contact the subject coordinator by email, phone or by using the subject forum. Times for and agendas of these virtual meetings will be negotiated between the student and the subject coordinator to best cater for the "onsite" learning needs of the student.

Checked up on each person just to see how they were going and if they were handling it alright. Just to let them know that you're there if they do need help (P1).

I think we [students] need a lot more feedback from lecturers (P7).

Even if part of the class meet up sometimes towards the end or even halfway through placement and say have a sort of 5 or 10 minute speech in front of the whole class and just say what you are doing (P2).

Maybe making time for every single person to come and see you. I think if you had one-on-one times that would be good. Even if it was a phone chat or on the chat room (P1).

Matching student and professional partner

The participants identified the necessity for creating an interpersonal and professional match between the student and the professional partner. Students viewed this as paramount to the success of the placement.

This is what I want to do, so where's an employer that'll match up with my vision. I think if you have that you're going to get more out of your prac (P3).

But I mean I guess it's just not really where you go, but it's who you do it with. And it's a bit hard when you don't know them to begin with ... you just meet them the first day that you rock up. I guess I was lucky because we were on the same page (P1).

In an effort to match students with potential professional partners that provide opportunities for students to achieve their professional objectives, students are now required to complete an Information Sheet graded as a Satisfactory/Unsatisfactory assessment task. The Information Sheet requires students to provide details including name, contact details, courses studied, subjects that explicitly relate to the potential placement, experience in other professional placements in first year, goals and objectives for and expectations of this placement and ideas for the WIL Project. Creating strong communication links between students, the university and the professional partner will

contribute toward ensuring that all are sufficiently informed of the requirements of the professional placement and prepared to undertake a collegial and negotiated partnership.

Conclusion

It is apparent from the research data that students welcome the opportunity to participate in a WIL experience that has the potential to assist them to gain accreditation with the professional body ESSA. The increased placement hours required and the broad range of activities in which students need to be involved (musculo-skeletal, cardiovascular and respiratory), provides both benefits and barriers to participation. As Lave and Wenger (1991) suggest to become fully socialised into the community of practice, in this case Exercise Physiology, students need exposure to the breadth of activities of the community's practices as well as to the range of members of the community. It is evident that the WIL subject has the potential to introduce students to these real-world practices through a cognitive apprenticeship (Brown, Collins & Duguid, 1989). Furthermore, as an example of an authentic assessment task (Biggs, 1995), the WIL subject requires students to apply their knowledge to cope with real tasks and problems that naturally occur in the workplace. Therefore the WIL subject assists these students to respond to tasks which are relevant, contextual and involve the synthesis of knowledge and skills rather than merely the application of procedural and declarative knowledge (Biggs, 1995).

In regard to the nature and depth of support required by students to undertake the WIL subject, the data generated from this case study, identified the need for the thoughtful scaffolding of the learning experiences that contribute to student learning. As legitimate peripheral participants (Wenger, 1998) in the community of practice, these students are being gradually exposed to the nature of the profession through a considered plan of sequential, supported learning experiences that increase in difficulty, responsibility, initiative and depth of knowledge required. For students to succeed in the WIL subject, it is imperative that their learning be developmentally scaffolded as their professional placements are essentially *test sites* for future career skills and as such the sequential progression of learning needs to be intentionally designed.

The data further supported the need for embedded conscious reflection during the WIL subject. The cohort of student participants in this case study clearly flagged the desire to document their experiences during professional placement. Such measures that can students to meaningfully reflect on i) their placement objectives, ii) their ongoing achievement of these objectives; and iii) the success of the WIL Project have been addressed through the use of the Information Sheet, blog and Final Evaluation Report. This practice is in accordance with the view of Schön (1983) who states that reflective practice involves thoughtfully considering one's own experiences in applying knowledge to practice, while being coached by professionals in the discipline. In their WIL subject, students are supported by the professional partner, their subject peers and the subject coordinator to make sense of their professional context, their proposed strategies to implement their WIL Project and to evaluate their degree of success. Encouraging student reflection assists in their development as autonomous, qualified and self-directed professionals. In order to achieve those aims, there needs to be authentic discourse between the university, the student and the professional partner which ensures that the student's goals for the WIL Project are well-defined and clearly understood by all involved from the commencement of the professional placement.

As the student voice has driven the learning design of the current iteration of this subject, there will doubtless be more to learn from evaluations of the subject over time. The results of this case study have clearly indicated that students are aware of their learning needs, particularly in regard to the

nature of the support required to aid them in satisfactorily completing a subject such as this. Students acknowledge their need to liaise regularly with professionals in their field to monitor their progress, combined with their desire to create successful professional relationships with their professional placement supervisor. Students' insights and candidness in their responses to the interview questions enabled the creation of a new infrastructure for the subject which is potentially more supportive of student needs and which is imperative for preparing students for success in any WIL activity.

Acknowledgements

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Learning in the community: student experience of community service

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This paper explores the effect that community engagement has on the development of graduate attribute skills of business students studying at the Australian Catholic University (ACU). Industry requires university graduates to be equipped with technical knowledge and also with graduate capabilities/attributes and/or generic skills such as communication, teamwork and problem solving skills. Universities have created policies regarding graduate capabilities/attributes and to measure the outcomes.

An evaluative model has been developed to determine the effect that community engagement has on the development of graduate capabilities/attributes of business students. The study also provides feedback on the effectiveness of community engagement in the program. Students are required to undertake 120 hours of unpaid community work at the Australian Catholic University (ACU) and provide a reflective report detailing the effect this has on their personal growth. Employers are also encouraged to write a report on the students' experience. A content analysis of the student reports was undertaken in order to determine how often the students referred to the development of these skills as well as how many students indicated whether the experience was positive or negative. The reports were then analysed against the University's Mission and published list of graduate attributes.

The findings provide insight into the perceptions of students regarding their community engagement experience and how this links to the attributes that the university is trying to instil in students. Overall the community service was a positive experience for students, increasing their confidence and their ability to work with others. With the pressure on universities to provide evidence of the improvement in students' graduate attributes this project provides a measurable quality assurance model.

Keywords: Community engagement, generic skills, graduate attributes, quality assurance model.

Introduction

Most would agree that graduates need to have more than only technical knowledge or disciplinary expertise in order to succeed when they leave university. "Graduate attributes are not discipline-specific, but are intended to reflect broader aspirational, social, ethical or humanitarian characteristics that a society desires of its university graduates" (BIHECC, 2007, p.12). Graduate attributes describe the core abilities that the university has agreed that all of its students will have developed by the time they graduate (Barrie, Hughes & Smith, 2009).

Bowden, Hart, King, Trigwell and Watts (2000) suggest that graduate attributes "...are qualities that ... prepare graduates as agents of social good in an unknown future." The language associated with the concept of generic skills or graduate attributes is quite complex and there is no real agreement as to what constitutes these skills, let alone how to validly and reliably recognise them in practice (ANTA, 2003). For the purposes of this study we will use the term graduate attributes.

Developing these skills or attributes in our students is important to the students themselves and their prospective employers. Employers want graduates who are able to work confidently and effectively from the time they start their employment (Subramaniam & Freudenberg, 2007).

Work-integrated learning has been used within curricula to help students to develop these skills (Fleming, Martin, Hughes & Zinn, 2009).

ACU has a unique mission which in part states:

The University explicitly engages the social, ethical and religious dimensions of the questions it faces in teaching and research, and service. In its endeavours, it is guided by a fundamental concern for justice and equity, and the dignity of all human beings.

...Its ideal graduates will be highly competent in their chosen fields, ethical in their behaviour, with a developed critical habit of mind, an appreciation of the sacred in life, and a commitment to serving the common good (ACU, 2008).

One way in which this mission is evidenced is that students in many of their courses are required to do 120 hours of community service. The way in which this is implemented changes from course to course. This paper will explore the ways in which students report that various graduate attributes have been developed through their community service.

Graduate Attributes

The Business Higher Education Round Table report of 2000 (Hager, Holland & Beckett, 2000) states that graduate attributes are what makes a difference between a good and bad employee, or a good and better employee. One of the major issues that arose from the Business Industry Higher Education Collaboration Council was:

When it comes to hiring new staff, the corporate world is demanding finance professionals with the complete package of technical, personal and interpersonal skills. There has definitely been a leap towards hiring people with communication skills and negotiation skills, not simply accounting skills (2007).

Goldsworthy (2002) in his book on leadership qualities required for the 21 century refers to the need of future Australian leaders in commerce and government to have several qualities if they are to survive the new boundary-less company. He states that the key attributes that business seeks in graduates are communication and interpersonal skills; decision making and problem solving skills; and knowledge of work and careers.

In 2002 Department of Education, Science and Training (DEST) created a list of employability skills for the future. These skills are communication, teamwork, problem solving, self-management, planning and organizing, technology, life-long learning and initiative and enterprise. These skills have been adopted by the (Vocational Education and Training (VET) sector and integrated into their curricula. Freeman, Hancock, Simpson & Sykes (2008) see employability skills as being a subset of graduate attributes. This is supported by the report of the Business, Industry and Higher Education Collaboration Council (BIHECC, 2007) which determined that the eight employability skills were included in most of the university policies either explicitly or implicitly. In addition universities also included graduate attributes related to social justice, ethical practice and social responsibility, respect and valuing of cultural and intellectual diversity, the ability to function in a multicultural or global environment (BIHECC, 2007).

The National Graduate Attributes Project (Barrie, Hughes & Smith, 2009) suggest that the “key to fostering sustainable scholarly engagement in curriculum renewal to achieve graduate attributes within universities, and across the sector, is a strategy for developing a shared, complex

understanding of the issues involved.” They acknowledge that such shared understandings are complex and that there is no single perspective that is correct.

The attainment of graduate attributes is complex. The attributes and their associated skills are interwoven with one another. Hager et al. (2000) give the example of teamwork and how teamwork requires communication and interpersonal skills. The aim is for graduates to be able to use the skills “seamlessly in appropriate ways in changing conditions and contexts.” (Hager, et al. 2000, p.7). They should be able to deploy these skills or combination of skills within the professional situations that they encounter in the work place.

While universities have been expected to facilitate the development of graduate attributes in their students for a number of years, they are now being expected to show how and where these attributes are developed. Australian Universities Quality Agency (AUQA) and the Australian Quality Framework (AQF) are both asking for universities to demonstrate how the development of these attributes is being achieved. The authors believe that it is important for students to be able to articulate not only their technical skills but also the generic skills that they have learnt.

Community Service Experience

The engagement of individuals with, and contribution to, their communities is integral to the core values governments expect of their citizens. Many individuals are engaged as volunteers who “contribute significantly to the social capital and to the economic viability of Australian communities” (Butcher and Ryan 2006, p.1). The idea that community service and civic duty are goals of education has been around for some time, but the idea that community service can be embedded into a curriculum is relatively new (Parker, Myers, Higgins, Oddsson, Price & Gould, 2009).

In regards to school education, The National Framework for Values Education (DEST, 2005) proposes that “education is as much about building character as it is about equipping students with specific skills”. It suggests that “values based education can strengthen students’ self-esteem, optimism and commitment to personal fulfilment; and help students exercise ethical judgement and social responsibility”

To what extent are these claims also true for higher education? Community service learning at university is not just about volunteering, it is about providing a service while also ensuring that learning happens (Parker, et al, 2009). It is about allowing students to contribute to their communities in a meaningful way while they also enhance their own learning (Miliszewska, 2008). True engagement happens when there is mutual benefit for the student, the community agency and the University.

As mentioned previously service to the community is a focus for Our University’s mission and community engagement is an important part of curriculum design. Most of the courses at the university have some form of community service embedded within the course. The Business course has a unit called Professional Experience 1 that requires students to do some form of community service and is the first of a series of professional development units. This unit requires students to complete 120 hours of unpaid community work of a ‘Personal Service’ nature in a non-profit organisation.

First year students are made aware of their obligation to community engagement in Orientation week. Students are required to attend a workshop in week two where they are given an overview of the program, unit outline, and strategies of how to secure a position. Various speakers are invited to address the students regarding community placement opportunities. Once the student has made initial contact with a host employer, they are required to meet with the university co-ordinator of the unit to discuss the possible position and prepare the necessary paperwork, which includes insurance details, responsibilities of the student and host employer. It is the students' responsibility to discuss these matters with the host employer. If a student is having difficulty in finding a host employer, the University has several contacts with community organisations that are passed onto the student to follow up.

By the end of their community placement students should have:

- An awareness of social justice issues and the economic and social effects of modern life;
- A heightened awareness of the responsibility of individuals to the wider community;
- Recognised the progress made in their own personal, ethical and spiritual development;
- Improved and developed their communications skills;
- Acquired skills to work successfully in a team work environment;
- Improved their ability to analyse and reflect upon their experience; and
- Developed and improved report-writing skills.

To fulfil the requirements of this unit students have to comply with various administrative tasks to which timelines have been set e.g. placement proposals and organisation details for insurance purposes. Students are required to have their placement organized within 8 weeks of commencement of semester. The student has to negotiate with the organisation their hours of work and duties. On completion of the placement the host is required to complete a performance appraisal with the student if possible. This appraisal is then submitted with a brief reflective report (approximately 600 words) and a daily diary. All paperwork must be submitted by the last week of semester two of the academic year. Reflection is seen as an important part of assessment in this type of subject as it helps students to understand what they have learnt from the experience (Parker, et al., 2009).

Research Method

The question this study investigated was whether the Community Service component of the Business course helped students to develop these university graduate attributes. The following question is addressed in this paper:

Do the students report that they are developing specific graduate attributes during the community service component of their course?

The methodology used was a content analysis of the students' reports. We did not want to influence the students' responses so we did not give them a specific questionnaire nor did we ask the students to report on any of these items. They were merely asked to reflect on the experience and what they had learnt from the experience. The reports were analysed to determine how often they mentioned the particular graduate attributes that we were trying to develop within the unit. A content analysis was chosen for this as it would allow us to quantify the responses. In addition specific quotes that illustrate the students' comments have also been extracted and reported.

In analysing the student reports we decided to concentrate on the following of our university's graduate attributes:

Professional

- Leadership skills
- Communication skills
- Interpersonal skills (including Teamwork)
- Increase confidence to work independently

Values

- Spirit of service to the community
- Respect for individuals and empathy with persons of differing backgrounds

We chose these as they were the most likely to be developed through Community Service and were related to the learning outcomes of the unit.

Results

Of the 139 first year students enrolled in the Bachelor of Business, Bachelor of Information Systems and the related double degree, 82 students successful completed their Professional Experience unit on time in 2007.

In Table 1 it can be seen that the majority of students were involved in tutoring at after school programs in English and Mathematics for refugee and migrant children with English as their second language or for students with disabilities. This is followed by activities with non profit organisations. It has surprised us that 25% of students worked in aged care or with the disabled. As one student expressed in their assignment

I have developed an understanding of other people’s situation and I feel that as a society we need to do more.

Table 1: Community Service Hosts

Non Profit Organisations	Camps	Community Groups	Recreational	Tutoring
Lions Club	Edmund Rice	Aged Homes	Sporting Clubs	Primary Schools
Salvation Army	Remar	Disabled	Former high schools	Non English Speaking students
Red Cross		Hospitals		
Epilepsy Foundation				
22	7	20	9	24

The number of students who indicated a positive experience was high (62.2%) as shown in Table 2. Only 2 (2.4%) indicated a negative experience. Many of the students said that they had been negative about having to do the unit, but felt that they had learnt a lot from the experience.

I honestly wasn’t expecting to get too much out of it. However, by the end of my placement I felt that I had gained a wealth of knowledge and experience that would further enrich me as a person and hold me in great stead for the future.

Students were not specifically asked to address whether they felt that the experience was positive or negative. It would be interesting to explore further into those who did not specify a positive or negative experience. This has not been done for this paper.

Table 2: Positive and Negative Experience of Community Service Experience

	Positive Experience	Negative Experience	Did not specify	Total
Number of students	51 (62.2%)	2 (2.4%)	29 (35.4%)	82

The students were not specifically asked about the graduate attributes. The content analysis showed the numbers indicated in Table 3 for the graduate attributes that we have chosen. The total number analysed was 82. Some students mentioned more than one of the attributes in their reports. The number of students who made some reference to having developed or used a particular attribute or skill is given together with the percentage of students who reported something about that skill.

Table 3: Sub Set of Skills and Attributes

Graduate Attribute / Skill	Number	Percentage
Leadership Skills	21	25.6%
Communication Skills	23	28.0%
Interpersonal Skills (Teamwork)	10	12.2%
Increased Confidence (become a better person)	28	34.1%
Community Responsibility	22	26.8%
Respect for individuals and empathy with persons of differing backgrounds	20	24.3%
Awareness of the Spirit of Community Service	21	25.6%

Whilst ‘increased confidence’ is not one of our universities graduate attributes, to be a confident communicator and be able to work independently it is a core industry attribute required by many businesses (Subramaniam & Freudenberg, 2007).

Considering the students were not directed to mention any of these skills or attributes, we would consider that anything over 20% was a good indication that these skills and attributes were being developed through this program.

We have included some of the students’ comments below in order to give the reader an indication of how the students expressed their feelings about some of these issues.

Leadership Skills

Whilst leadership skills are not explicitly mentioned as graduate attribute it was decided to include this skill in the report as a quarter of the students (25.6%) indicated that they had improved their leadership skills while doing their community service. Leadership skills are taught in most business courses in their management units and also appear in many job advertisements as desirable.

Getting out into the community in the way I have has really had an impact on my life. Not only have I made some great friends that all have a common interests, helping out those less well off within our community but I think that the time spend with kids really does made a difference. I have been presented with many different challenges, both in dealing with the children and with other leaders. It has been a great opportunity. Interpersonal Skills (Teamwork)

Excellent teamwork and communication skills are frequently cited in many advertisements for professional positions as desirable attributes for potential employees. With this in mind universities plan their assessment to include, teamwork, negotiation skills, sharing of information, cooperation and participation with the overall objective that students will be able refine their teamwork and communications skills, meet deadlines, gain the ability to delegate and respect their fellow team members. As one student said:

I have equipped myself with the skills to work in a team, communicate better and understand the difficulties that people face around Australia. I found that I could give something to another person that would put a smile on their face.

Counter to our expectations only 12.2% of students mentioned that their teamwork and interpersonal skills for working in a team had been improved.

Increased Confidence (becoming a better person)

One of the recurrent themes identified was related to the student having gained increased confidence and feel as if they have improved or become a better person.

Within the program I developed many attributes which have helped me to become a better person. The program is a good foundation for students to help become better people in society. I owe a lot to the program which has helped to form me as a person.

Looking back at my journals I was able to see that one of the biggest things that I have taken from my BIPX100 is the virtue of patience. I was able to see how much I have grown as a person. The experience has offered me some great challenges and experiences all which I will be able to use in both my professional life and also my private life. This has been a very positive experience for me, one which I will not forget quickly.

Community Responsibility

It was pleasing to note that 25% of students have gained an awareness of the spirit of community service as one student noted 'we live in a society and not economy'. Below are two quotes from student's reports that also relate to their awareness of community responsibility.

This experience has taught me a great deal and has been a very meaningful experience. One of its aims was to 'impact on my attitudes and values' and it certainly has. I really enjoyed my time at the Community Centre. I was really blown away by their community spirit.

Overall, it has been a very eye opening and enjoyable experience. I have learnt a lot about the basic needs of society and have had the opportunity to work with many inspirational people. Had it not been for the compulsory completion of this unit it is unlikely that I would have attempted anything like this. Hence, I found this unit beneficial to my personal development.

Respect for individuals and empathy with persons of differing backgrounds

Australian society is made up of a range of different cultural groups, each of which has its own values, beliefs, and practices. It is therefore important for graduates to have an understanding of this cultural diversity and be aware of their needs. As part of our university's Mission Statement (ACU, 2008) which states, '*it is guided by a fundamental concern for justice and equity, and the dignity of all human beings*'. Below are two quotes from students in this regard:

The volunteer work has meant more to me than a bunch of hours recorded. It has broadened my awareness of others, exposed me to the beauty of diversity and strengthened me in my appreciation of the sanctity of life.

I learnt a great deal from my professional experience. Firstly I learnt how to deal with students who have a learning disability and how to understand their needs. It also taught me how to act and react to persons with mental or physical disability and because someone has a disability doesn't mean that they are any less of a person. It also taught me that being active in your community and helping those who do not have the ability to help themselves is a great thing. I knew from the first day of my professional experience that I would like to continue to volunteer there because of the sense of achievement you feel after helping the students is such a great feeling.

The overall experience

This quote is from a student who worked at an aged care facility;

I am extremely grateful for being able to have this experience in my life at such an early age. I saw many things which I would not have normally seen in my daily life. The work allowed me to show my caring side and bring myself out to help other people and to be less selfish. There is no part of this experience that would I would change or regret, only the fact that I wish more people could experience the same things I did.

The following is the conclusion of a student who worked with disabled children;

My placement in general was nothing short of amazing to realise the simple things in life can be so great. The accomplishment that I felt after seeing what affect I had on the student was extremely satisfying to be involved in. The feeling that came from seeing a student accomplish something that is a strong goal cannot be felt through anything I have ever experienced before. I am very grateful to have had this experience and be apart of something very appreciated.

This student worked at one of the large cancer hospitals:

Working with the sick help you realise as a person that there are many more worst things in life than doing bad in an exam or failing a subject. Volunteering is all about putting others before yourself and in the end you feel rewarded because you have helped someone else.

And finally the student below has recognised that hard work and dedication can lead to a change for good;

The overall experience made me see that doing something for nothing is much more rewarding for me than for those I am helping. A big lesson I have learnt through this process is that it is easy to complain about things we don't like about the world, and they will stay the same. However it takes effort to step up to the task and put in the hard work, but it is making a change which is the most important thing.

Conclusions and future research

Students seem to have learnt a lot from their community service experience. These skills cannot always be measured and the students may not even be aware of their learning. This research only looks at what the students have self-reported in their reflective report. This is a limitation of the research. Overall the community service was a positive experience for students, increasing their confidence in themselves and their ability to work with others.

Of the skills that we searched for, only interpersonal skills for working in teams was mentioned by less than 20% of the students. Despite this more than 24% said that they had learnt to work with people from different backgrounds to themselves. Over 34% of students felt that they had grown in confidence in their own abilities in some way. Students report that they are developing the graduate attributes that are important to our university through their community experience.

Future research in this area will focus on a targeted questionnaire to students in third year and to graduates of the program to see if the benefits of the community service experience are seen later in their studies and work life. This will also enable us to determine if employers are seeking students with this type of experience and if students carry on volunteering later in life.

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Towards accounting students workplace preparedness: A unique internship approach

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Undergraduate accounting students would benefit from the combined learning approach of simultaneous classroom and workplace experience to better prepare them for the challenges of industry. In the absence of teachers, subjects and assessment, students need to know how to learn by reflecting on their workplace knowledge and skills, both for professional growth and development, and to adapt to an ever-changing workplace environment. This paper presents a unique internship programme for business students, focusing on their learning beyond the classroom. The Commerce Internship Programme (CIP) developed and implemented at the University of Wollongong, Australia, offers a model for enhancing student engagement in learning through practical experience. This study explored the reflective learning insights of accounting students who participated in CIP. Data was collected across two cohorts of students who participated in the internship program in the autumn and spring semesters of 2009. Preliminary results suggest that accounting students reveal learning pertaining to their workplace preparedness, understanding of accounting principles and taught concepts, generic skill enhancement and consolidation of accounting as their chosen professional career. The paper suggests that such a programme as the one examined will contribute to the professional bodies' expectations of accounting graduates to possess key cognitive and behavioural skills.

Key words: accounting students; evaluating internship learning; internship; reflective journals

Introduction

Higher education providers are faced with the challenge of producing graduates that meet the expectations of industry and professional accreditation bodies. These expectations however, are moving away from a discipline and competency focus, towards a graduate who is 'work-ready'. In a competitive marketplace, employers are seeking graduates that not only have technical skills but also soft skills such as ability to effectively communicate, interact and empathize with client needs (Hodges & Burchell, 2003). These generic skills are becoming highly sought after qualities and, according to Goleman (1995) can be attributed to an individual's professional success or failure more so than technical skills or intelligence.

According to Stovall and Stovall (2009), given the tumultuous marketplace and decrease in recruitment numbers from public accounting firms, accounting graduates who are short of these generic skills, may discover seeking employment opportunities particularly difficult. Moreover, they suggest that enrolment numbers and the reputation of the institution may be at risk if they graduate qualified accountants who are not job-ready.

Concerns from employers have been raised whether undergraduate programs are producing graduates with the necessary skills to support their transition into industry and for their professional careers (de la Harpe *et al.*, 2000; Kavanagh & Drennan, 2008). Students themselves have reinforced this concern, reporting their awareness of employers' expectations and concern that undergraduate

accounting programs are not doing enough to sufficiently provide opportunities to develop these 'essential' non technical and professional skills (Kavanagh & Drennan, 2008).

Very few accounting internships or work placements at the undergraduate level emphasise the processes and tools of learning for professional development. Many accounting internship opportunities focus on the development of core technical competencies and short-term training incentives such as gaining casual employment, even teacher-driven motives such as increasing students' appreciation and perception of the lecturer's role and taught subject matter (Herron & Morozzo, 2008). While the objective of higher education is to prepare graduates for industry, the operationalisation of this aim must place an emphasis on lifelong learning and professional development.

Foregrounding learning and promoting the importance of learning beyond university is missing in the discourse of higher education, according to Boud & Falchikov (2007). Beyond the walls of formal education, students must engage in work and life as active learners, 'they have to determine what is to be learned, how it is to be learned and how to judge whether they have learned it or not' (Boud, 2007, p.18). Therefore to best prepare students for the workforce, a new set of work-related tools must be developed to help students learn and develop professionally.

Through the framework work-integrated learning (WIL), undergraduate programs that combine practical opportunities while applying classroom learnt knowledge, allow students to develop such skills as communication, team work and problem solving (Bohloko & Mahlomaholo, 2008). The authors of this paper argue that it is the combination of practice and application of knowledge, through the design and structure of a supportive program and the opportunity to reflect on experience that better prepares students to learn for the long term. This paper presents a unique internship program for business students, focusing on their learning beyond the classroom and specifically the evaluation of accounting students' reflections after participating in the internship. The authors anticipated that these insights would provide a greater understanding of accounting students perceptions and learning in the program and add value and feedback to the structure and intentions of the program.

Unique Internship Approach

The Commerce Internship Programme (CIP) developed and implemented at the University of Wollongong, Australia, offers a model for enhancing student engagement in learning through practical experience. Since the programme began in 2008, over 180 students have been placed in over 40 regional and national organisations. Each semester, while both student and industry demand has risen, CIP has prioritised quality over increasing numbers indicating the effectiveness of the CIP model and level of interest and sustainability in community engagement. This programme is unique through its focus on learning beyond the classroom through its structure, processes and assessments. The following are key features of CIP:

CIP Stakeholder Model

The aim of the Internship Programme is to provide students with a valuable, professional learning experience, whereby host organisations offer practical opportunities to apply the disciplinary knowledge learnt at university. Developed in conjunction with industry, CIP strongly emphasises meeting the needs of its three stakeholders; the students, industry and the university.

Students, organisational stakeholders and faculty are strongly linked by the connection to learning and graduate outcomes. Students are provided with the opportunity for work placement in host organisations and, in turn, contribute to their host organisation by performing tasks that enhance operations or project work. The faculty, further informed by current industry experience and student engagement with organisations, is better equipped to develop knowledgeable graduates as well as the potential for collaborative research opportunities. Driven by the key attributes of quality, flexibility and sustainability, the programme further embeds the faculty's graduate outcomes and helps to ensure that graduates are socially responsible, innovative, flexible, communicators, connected, and informed (Faculty of Commerce, 2008).

CIP Processes

The programme is based on of students participating in a 16 day placement at a host organisation during semester. The placement positions are competitive and require students to apply online for organisational roles related to their selected discipline. While students are short-listed against a placement description provided by the organisation, the final decision to offer the student placement is made by a representative of the organisation based on a formal interview process. This selection process increases the competitiveness of the placements and subsequently students have been found to be highly appreciative of the opportunity and motivated to perform well during the internship. Through the selection of a student and provision of a learning scholarship to the successful intern, the host organisation is critically engaged in the process prior to the student beginning work placement.

This competitive process introduces students to an application and interview process that they may experience upon graduating. For those who are interviewed, being exposed to an industry partner and preparing for such experience is excellent preparation for the future. All students who apply are encouraged to learn from the experience through completing a flowchart of reflective questions available online during the application process.

Professionalism

While the programme is an elective subject and open to second and third year Bachelor of Commerce students, the activities undertaken in the workplace make real contributions to the operations of the organisation. Students are expected to behave, dress and act professionally as they interact with clients and staff. Students are treated as part of the organisational team and included in social and professional activities during the course of their placement. At the end of the placement some host organisations have acknowledged the contribution of the interns by taking the students out for lunch, and in some instances students have been offered full-time or part-time employment at the conclusion of their placement. While the student has the beneficial opportunity to experience a professional working environment, the host organisation also benefits from the enthusiastic student approach to their work, along with positive word-of-mouth generated from regional networking.

Host organisations are carefully selected by the facilitators of the programme and are invited to host a student often through referral. Host organisations range from local SME's, national and international corporations, local governments and Not-For-Profits. Students are provided a learning scholarship from the organisation, with the exception of Not-For-Profit organisations, in which case external sponsors may donate the scholarship.

Reflection and Assessments

Reflection is critical to professional development and learning from experiences. In higher education reflective assessments such as a journal can be used to reinforce learning (Beck & Halim, 2008) and meet academic requirements. Reflection allows students to identify links between theory and practice, and support their learning by transforming tacit knowledge into explicit, codified knowledge to be shared with others and inform future decisions.

Assessments include a daily e-log, four modules focusing on the workplace environment, team work, creative and critical thinking; and, a reflective journal. Reflection is taught and discussed during the first of two lectures. The first lecture introduces reflection and prepares the students for the workplace covering topics such as equal employment and diversity and code of conduct. The second lecture at the end of session serves as a reflective time to share learning experiences. All assessments are submitted online through an e-Learning forum allowing students to submit work while not on campus. E-readings are available through this site and are selected for their relevance to the modules, internships and reflective practice. All e-logs are due the Monday after an internship day which achieves several purposes. It is a timely and flexible way to maintain regular contact, offer support and feedback, and comment of reflective techniques. This assessment method allows placements to be conducted while fitting into the student's current workload schedule.

Supportive Transition

Support is a critical and unique element to the programme, which transitions students into industry and prepares them for the work force. Within the workplace students are allocated a mentor to nurture their development. Students are provided with an initial pre-placement meeting at the host organisation's premises with the coordinator and workplace mentor. This meeting orients the student with the organisation and discusses their role in further depth. At this time, formal agreements are signed by the organisation and by the student, outlining legal obligations, such as IP, insurance and confidentiality. Throughout the placement, students and CIP coordinator remain in regular contact through the e-Learning forum, text messages, informal face-to-face discussions and placement visitations.

Method

The aim of this study was to explore the reflective learning insights from accounting students who had participated in CIP. Data was collected in the autumn and spring semesters of 2009. The authors anticipated that these insights would provide a greater understanding of accounting students' perceptions and learning in the programme and add valuable feedback to the structure and intentions of CIP. The disciplines of accounting and finance were selected for the analysis, totalling 16 students. The sample consisted of seven females and nine males of which four students were classified matured aged (<25 years).

Reflective journals, the final assessment task for CIP, were selected due to their usefulness in gathering rich self-reported insights into students' learning experiences (Smith *et al*, 2007) and reflections on the underlying dimensions of work practices (Clegg, 2000). Qualitative analysis was undertaken to discern common underlying themes in the students' reflective journal assessments. Responses were coded across the dataset for key terms, expressions or phrases. This technique is known as "open coding" (Strauss & Corbin, 1998, p. 32), and has been employed in the analysis of open-ended questionnaires to reveal common themes (Yanamandram & Noble, 2005). The authors coded the dataset individually to minimise the risk of overlooking important concepts. Collectively

the codes were then compared and interpreted to identify shared learning insights. The authors discussed and resolved any concerning expressions by considering the meaning in the given context, ultimately agreeing on the themes that had emerged in the data.

Results

Through this preliminary investigation, it was revealed that accounting students' learning pertained to common areas; workplace preparedness, understanding of accounting principles and taught concepts, generic skill enhancement and consolidation of accounting as their chosen professional career. Results also uncovered that reflection in an internship experience has enabled accounting students to gain another perspective in regard to their competency levels in the accounting profession, this being the development of much-needed generic skills, such as analytical and critical thinking, communication, teamwork, technical skills, attention to detail and meeting deadlines.

Workplace preparedness

Students commonly identified themes related to their preparedness for the workplace. As the following student demonstrates, their learning during this time moved beyond application of knowledge into workplace practices and insights into organisational culture, "...I quickly found out that placement was about much more than just the industry I wanted to work in. Placement taught me about discipline and how to work in a professional environment" (Student 15). This type of learning can be restricted in simulated classroom activities as the learning this student refers to can only be derived from a professional context, the richness of which can not be replicated with teachers and classrooms. Again, this learning prepares students for real work related challenges and environments which they will be learning and participating in during their professional career. As one student articulated;

I perceive one of the major weaknesses of a student leaving and working for an organisation is the lack of understanding of workplace culture and practices. In undertaking this internship I have been able to experience the work environment and grasp an understanding of what is required of me and how to adjust to these new situations. This will benefit me in the long run as I will be able to adjust to any new organisation more effectively than if I hadn't undertaken this opportunity (Student 3).

This insight demonstrates the value of first hand experience in the workplace. This includes the students' preparedness for the transition into industry, and, as the last student articulated, for future changes and challenges. In stating their readiness for the workplace, accounting students typically discussed their excitement for their career, which was closely followed by motivation and a sense of ambition, "overall this was a very positive experience and one that has motivated me to push my limits to fulfil the potential that I possess" (Student 15).

Within this theme also emerged the students' growing sense of confidence in themselves and their abilities in the workplace. For example one student reveals a greater awareness of self, through being supported and encouraged while on placement:

By doing this placement I have also developed a greater sense of self-worth. On the final day of our placement the finance department took us out for lunch to thank us for our contributions. At lunch it was made clear just how valuable my contribution was, and I now see that I can contribute to organisations (Student 3).

Understanding accounting principles & taught concepts

The second common theme that emerged from the students' reflective journals was the application of first year concepts and a general increased understanding of accounting concepts in practice. During the 16 day internship, accounting students referred to tasks associated with first year accounting subjects, which are core for all Bachelor of Commerce students to complete in their first year. Types of activities that were performed on placement that are taught in these subjects include reconciliations and completing basic financial reporting. This provides assurance to teaching practices, that first year subject content is related to graduate level industry practices. However all students performed roles on placement that were not directly linked to a subject, such as networking, presenting, data gathering and customer service. The following student identifies how the placement has modified their professional accounting paradigm;

The underlying assumption with most accounting jobs from an individual's perspective is that it's virtually all number crunching, however... within public practice the roles are quite diverse... [as in] the particular roles I've done within the organisation (Student 1).

The reflective journals also revealed that for many students, the internship provided a 'light-bulb' moment, where connections were made between text book terms or practice set book activities, to how they translate in the workplace. This new information has provided them new insight on their studies, "I have learned that it is important to understand why I am being taught what I am" (Student 15). Another states, "I have realised that it's not the grades that matters most, but being able to understand what you are taught and apply it in real life" (Student 7). Comparisons were also made between learning paradigms at university and in the workplace, "I was able to appreciate the difference from just memorising to understanding when it comes to learning. Which at times, especially in the case for studying for an exam, it is usual to just memorise concepts, however by completing projects/tasks while at the internship I have been able to appreciate why understanding a concept is more important" (Student 11).

Generic skill enhancement

The third common theme was the identification of generic or 'soft' skills, more commonly those skills which were not technical or related to discipline knowledge. From the range of generic skills reflected on, team work skills and communication skills were the most prominent. Although team work was a module which formed part of the students assessment, when discussed in the reflective journals the reflections were personalised and a few drew a comparison to group work at university, "the team experience in a professional setting was quite different [from university]... I was not able to complete a team project by myself as this was not only too broad and difficult, but it required specific knowledge which was beyond my grasp and expertise" (Student 2). Similarly, another student discovered, "the more time I spent at the internship I realised that I did not have to only rely on myself and that in fact I needed to use the team to assist" (Student 10).

Many students reflected on a general enhancement of their communication skills due to the new work context and the challenges this presented. Communicating and interacting with a new group of people, including managers, CEOs and clients, offered opportunities to grow these new skills while overcoming personal barriers, "Even though I had previously possessed these through work experience at McDonald's and by becoming a PASS leader, I believe that the internship allowed me

to enhance these skills as it forced me out of my comfort zone. For example, meeting senior partners and managers was extremely intimidating for me on a personal level however I was forced to adapt to this as I was required to interact with them constantly in order to perform my tasks” (Student 3). Aligned with an increase in new skills is also an awareness of a growing confidence level and a new approach to being productive in the work place, “At the start of the internship I was very quite, independently and conscientiously moving through the work and waiting for more work to be assigned, as I became more confident I began proactively requested and suggesting work, but given my nature I had to push myself to be more forward or self promoting” (Student 10).

Consolidation of chosen profession

The fourth common theme that emerged from analysing accounting students’ reflective journals was the reassurance of their chosen discipline and career direction. For example, this student was able to confirm their choice of profession and be exposed to a new industry sector from their internship placement, “...not only has my overall experience reinforced that I have chosen the right career path, but it has also provided me an opportunity to see how well I would fit into the public sector” (Student 2). Confirmation of chosen profession has also been linked to greater motivation towards entering the workforce and for university studies;

“After working in the field that I have been studying, by belief that I have chosen the right career path has been reaffirmed. I have thoroughly enjoyed my time performing accounting practices and solving problems with my industry knowledge. By knowing that this is the course for me I am more motivated to work harder and achieve higher” (Student 3).

In addition to motivation, students perceptions of their employability and competitiveness in the marketplace has also been modified, “Having this experience will help me further my career prospects because it has given me experience in my industry, which will be vital in securing an accounting job as it makes me more employable and qualified to take on a graduate role” (Student 11).

Beyond Textbook Learning

Undergraduate accounting students often make the decision to pursue an accountancy career without direct experience in the profession (Herron & Morozzo, 2008). The Commerce Internship Programme presented here provides students a supportive transition into industry, exposing them to real life conditions and professional experience. It allows students to experience similar selection processes that they will be confronted with when placing themselves in the market for employment. It offers reflective assessments to self-assess their aptitude and motivation towards their chosen career path and their personal development. This knowledge and preparation while an undergraduate is essential in grounding student perceptions of industry and can have positive results such as increased motivation and understanding in class.

The learning that takes place in industry can be different to that experienced in formal education situations such as high school and university. This experience can inform student perceptions, “Before undertaking the internship I had a fear that I wouldn’t enjoy the practical side of accounting as it is one thing to study the concepts in theory however when it is put into practice within the workplace it can be completely different” (Student 11). Industry experience may also challenge their assumptions, “It has also assisted me in realising accounting has a greater application on society than initially presumed” (student 14). It may provide them with a new

learning style, “I believe doing an internship has been an invaluable experience because I was able to learn things that cannot be learnt from reading a text book. I was able to discover new learning methods and also reinforce existing ones” (Student 6). Finally, it can provide value that may not have otherwise been experienced, “Personally, this internship has given me the best possible experience in my university life” (Student 4).

Conclusion

Higher education must manage the challenges presented to them, concerning changes and expectations in industry, along with adequately preparing students to meet these demands. Beyond the institution, students will be learning a different way to how they are currently learning knowledge and skills. Without teachers and textbooks, students need to learn skills that enable them to be productive in their professional development and towards lifelong learning.

While the results presented in this paper concern accounting students, further research could investigate the learning outcomes of additional business disciplines. The sampling method utilised may present as a limitation of the paper, however the authors intend on using this as a comparative basis from which a longitudinal study may be carried out. The Commerce Internship Programme is also unique to the study and alternative WRL programs could be also be of interest in relation to reflective learning and learning that occurs beyond the textbook.

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Exploring evidence for the role of reflection for learning through participation

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Reflection is widely used in experience based learning (Moon, 2004). A review of the literature reveals limited empirical evidence for the correlation between reflection and positive student learning outcomes. A substantial body of anecdotal evidence, together with evidence based on student satisfaction and self-reporting, indicates the value of reflection for learning. This paper systematically explores existing evidence for the practice of reflection and presents strategies for learning and teaching of reflection in the context of experience based learning. Models informed by theory and developed as a result of this research are introduced.

Keywords: collaborative learning; critical reflection; experience based learning; participation; reflection; service learning; work based learning; work integrated learning.

Introduction

By three methods we may learn wisdom: First, by reflection, which is noblest; second, by imitation, which is easiest; and third by experience, which is the bitterest (Confucius, 551-479 BCE).

Learning through participation, commonly referred to as experience based learning, is perhaps the earliest and most prevalent form of human learning. It is increasingly used in higher education to develop professional practice (McAlpine and Weston, 2000), prepare students for work (Smith et al, 2009, Watts, 2006) and encourage social responsibility through what is often termed service-learning (Holland and Ikeda, 2004). The literature supports the Confucian perspective that learning may occur through reflection, imitation and experience, all of which are possible through participative learning. Learning through reflection on experience is widely reported in the literature with many authors (Boud, Keogh and Walker, 1985; Bringle and Hatcher, 1999) arguing that reflection may be required to elicit the rich learning potential of participation. This paper explores the evidence that well designed and aligned reflection may underpin and synthesise learning through participation (which may involve imitation and experience).

Background

A literature review was undertaken in preparation for Macquarie University's Participation and Community Engagement initiative (PACE). Macquarie University is a large, single campus metropolitan university in the process of establishing its PACE initiative in response to the

University's undergraduate curriculum renewal program (2008-2009) and the objective to produce ethically engaged graduates in local and global communities (Macquarie University, 2010). The new curriculum will, by 2012, require all undergraduates to complete Participation (PACE) units as part of their study program. PACE units will be required in all disciplines, may be drawn from the range of experiential learning modalities and are analogous to the work related learning activities offered by many universities that may be termed: work-integrated learning, work based learning, collaborative learning, service learning, career development learning, experience based learning, internship and practicum.

Given the widespread use of reflective practice in learning through experience, we sought to explore this underlying assumption that reflective practice has positive outcomes for learning. The aim was to locate the evidence and learn from the experience of others. Three research questions were developed to guide this process:

- What is reflection?
- What is required to develop reflective capacity?
- What is the relationship between reflection and learning through participation?

This paper presents key findings from the resulting literature review related to questions one and three, together with models that outline the roles of reflection and principles for aligning reflection for learning through participation. A separate paper on scaffolding reflection for learning through participation will explore the substantial literature related to research question two on what is required to develop reflective capacity.

Method

The literature review comprised comprehensive, but not exhaustive Boolean searches through the data bases: ERIC, British Education Index, Australian Education Index, Informaworld, EBSCOhost, CSA illumina, SpringerLink, Google scholar, Oxford Journals online, Cambridge Journals online, Sage journals online and Informit. Key words and phrases relating to reflection were used initially to define reflection on a macro level: critical reflection, transformative reflection, premise reflection, critically reflective practice, reflective writing and typologies of reflection.

The search was then refined to focus on reflection in the context of participation-type learning experiences (using terms listed above) and the application of reflection in practice including learning and teaching (scaffolding) the skills of critical reflection. The search now included: critical reflection, critically reflective practice, reflective learning, reflective judgement, reflexive learning, metacognition, critical thinking, transformative learning and scaffolding critical reflection.

Additionally, articles cited in the literature were sourced, and seminal works and prominent researchers in the field canvassed. Current literature, primarily writings from this decade, was the focus of the review whilst acknowledging and incorporating earlier seminal works such as Brookfield (1995); Mezirow (1991); Kolb (1984) and Schön (1983). The refined literature review focussed on identifying qualitative and quantitative research that would provide a body of evidence to establish the effectiveness of reflection in higher education.

Defining reflection

The literature does not reveal an agreed definition for reflection. An analysis of different approaches to reflection provided by Rogers (2001) identified that ‘no fewer than 15 different terms were used to describe the reflective process [and that] the term reflection is used as a noun, a verb, an adjective, a process and/or an outcome’ (p.40).

The UK Qualifications and Curriculum Authority (QCA) provided a definition of critical reflection in the context of National Standards for Key Skills that emphasised the role reflection may play in learning in the UK context:

Critical reflection is taken to mean a deliberate process when the candidate takes time, within the course of their work, to focus on their performance and think carefully about the thinking that led to particular actions, what happened and what they are learning from the experience, in order to inform what they might do in the future (King, 2002, p.2).

Although the language differed between the many typologies, taxonomies and approaches to reflection, most authors agreed that not all reflection is critical reflection and that critical reflection is a higher order skill that is challenging to teach and learn (Jay and Johnson, 2001; Larrivee, 2008). The very notion of reflection presupposes students have the capacity to engage in introspection and open-minded self-analysis of their own beliefs and knowledge. The capacity for critical reflection is therefore said to be associated with higher order cognitive processes of self-regulation and metacognition (Paris and Winograd, 2003). The ability to critically reflect is also associated with the higher levels of learning in taxonomies of learning objectives such as Bloom’s (1956, revised by Anderson et al, 2001) taxonomy and the SOLO (Structure of the Observed Learning Outcome) taxonomy (Biggs and Tang, 2007) in which the process of reflection is described as ‘indicative of the highest *extended abstract* level of learning’ (King, 2002, p.3).

Larrivee (2008), whose focus was on developing critically reflective practice in student teachers, noted that the term critical reflection had the ‘most consensus in the literature as a level of reflection examining ethical, social, and political consequences of one’s practice’ (p.343). This definition with its emphasis on examining, perhaps confronting, implications of one’s practice offers potential for students to challenge their underlying assumptions, values and beliefs. Such a process, founded in the deeper practice of critical reflection, is essential to transformative learning (Mezirow, 1991; Boud, 1994 and Dirkz, 2001) as it may lead to changes in students’ meaning schemes or world views, precursors for behaviour change.

Reflection may be differentiated by levels (from merely reporting to critically reflecting), focus, source, perspectives or lens (Brookfield, 1995). The deeper levels of reflection that may be achieved through critically reflective practice are presented in the literature as higher order cognitive processes and skill. Additional influences in reflection, and therefore its role in learning through participation, include: situation (reflecting for, in or on action), context, content, time, process, practice, dimensions, spheres, mode of expression or communication. Depending upon the interaction and the degree of alignment, reflection may or may not contribute to academic learning, professional skills, graduate capabilities or attributes, transformative or emancipatory learning and may or may not challenge assumptions and beliefs and prevailing social, cultural, political and environmental paradigms and meaning schemes and perspectives. The nebulous and all-embracing nature of reflection adds challenging dimensions to any discussion on the role of reflection for learning through participation.

What the studies reveal

Although the use of reflection in higher education is well documented and anecdotal evidence, student self-reporting and small case-based studies are widely reported, empirical evidence for the efficacy of the relationship between reflective practice and learning outcomes is not widely reported in the literature. Analysis of the literature revealed a tendency for researchers in the field to write with the assumption that reflection works, without providing evidence for the basis of that assumption. The theoretical basis for reflection was not readily apparent in the literature. Reflection is thus judged to be a conceptual framework rather than a theory. A theory can be tested. A conceptual framework can be judged, for example, in terms of its scope, its logical characteristics and whether or not it stimulates further work based on its concepts. On these terms, reflection is evidently a success as it continues to generate ongoing enquiry.

Of the nearly 60 studies related to reflection and participation which were reviewed by the authors (a full list is available from http://www.mq.edu.au/ltc/projects/curriculum_renewal/pace_resources.htm) only a small number comprised large-scale, longitudinal research. The largest of the studies with more than 22,000 students sampled over five years identified reflection as an important contributing factor for learning through service (Astin, Vogelgesang, Ikeda and Yee, 2000). Other studies develop models that support reflective skills development and reflection in practice: Correia and Bleicher's (2008) six year study resulted in four steps to guide reflection using connections and reflection markers; and Eyler and Giles, (1999) developed the five C's for effective reflection (connection, continuity, context, challenging, coaching). A twelve year study that focussed on service learning (Kiely, 2005) resulted in the development of 'A Transformative Service-learning Process Model' (p.8). Students reported higher than average satisfaction with modules that introduced critical reflection (Rothwell and Ghelipter, 2003) yet in this study of more than 6,000 over four years it was not possible to ascertain how many students achieved single loop learning or paradigm shifts through critical reflection (p.251).

Limited empirical evidence was offered otherwise, with single iterations and small samples predominant. Many studies that outlined useful steps and guidelines for scaffolding or designing reflection, for example, were based on student satisfaction or self-reporting on learning, perception or practitioner action research that have not been replicated. Whilst acknowledging that only limited empirical evidence existed, Eyler (2002) cited situated cognition, problem-based inquiry and adult cognitive development as areas in which research had shown a link between reflection and learning.

Emergent Themes

The review of the literature on reflection was judged for its relevance to learning through participation. As a result approximately 25 key readings were explored to conceptualise themes. The three themes that emerged were:

- reflecting for learning through participation;
- the learner and reflection; and
- teaching reflection.

This paper presents findings on the first two themes, with the discussion of the third theme the focus of a separate paper on scaffolding reflective skills for learning through participation.

Reflecting for Learning Through Participation

Evidence to support the use of reflection for learning through participation is found in the work of McAlpine and Weston (2000) who developed a model of the metacognitive process in (teacher) reflection, based upon six exemplary teacher case studies. They concluded that the evidence showed reflection as a mechanism for the construction of knowledge from experience although this knowledge did not necessarily lead to behaviour change (better teaching) or link to student learning. Practice and feedback over time are considered necessary to move from 'better thinking' to 'better action', reinforcing the findings of other studies that identified the importance of regular feedback and formative assessment for scaffolding critical reflection skills (Bain, Mills, Ballantyne and Packer, 2002; Mabry, 1998; Power, Clarke and Hine, 2002; Stupans and Owen, 2009).

A direct link between critical reflection and behaviour change was identified through research in the health promotion field by McWilliam et al. (1999). They found that patients who participated in facilitated critical reflection on health and life showed significantly more positive results on a number of indicators than the control group. Most results were maintained after one year. What was not clear was the impact of the contextual nature of the reflection, in that patients' health and quality of life was at stake and their behaviour change led to direct, personal rewards. The authors note that learner motivation and self-regulation are key components of sustainable behaviour change.

Conversely, Nikolou-Walker and Garnett's (2004) research into students' and employers' perceptions of the advantages and disadvantages of reflective practice to professional development in a work-based learning context concluded that despite good intentions 'no tangible evidence remained at the end of the process as proof of change in terms of the participants' approach to their working and/or personal lives' (p.306). A study into the development of reflective learning with management students in the UK and Israel (Rothwell and Ghelipter, 2003) could not ascertain how many students achieved the paradigm shift that could be achieved through critical reflection.

The research reviewed is inconclusive in establishing a relationship between reflection and learning through participation, presenting limited empirical evidence or theoretical underpinning to support the efficacy of reflection in higher education learning. Practice, as reported in the literature, is quite opposite with an almost universal application of reflection to experience based learning situations, widespread practitioner acceptance, positive anecdotal evidence and perceptions. It appears that practitioners are drawing on their "felt knowing" (Gendlin, 1968 and Walkerden, 2009) to justify their commitment to the elusive approach that is reflection.

The Learner and Reflection

The learning and teaching of critical reflection are the subjects of a significant proportion of the research into reflection reported in the literature. This section briefly outlines findings on how learners engage with reflection and is offered as a context for examining the role of reflection for learning through participation.

Not all students are naturally critically reflective, but students can be supported in developing reflective skills (Moon, 2004 and Larrivee, 2008). Some may struggle to learn to reflect beyond the most basic, descriptive level. A relationship between approaches to learning and level of reflection

was indicated by Leung and Kember (2003) who concluded that the higher the order of reflective thinking, the stronger the relationship with deep approach [to learning] (p.66). Not all students are deep learners in all contexts (Biggs and Tang, 2007). Students can be supported to reflect, to take their reflections and thereby their approach to learning to a deeper level. Learning through participation offers one of the entry points for students to engage with this interactive process of reflection, learning, approaches to learning and participation.

There exists a diverse range of tools for reflection. A common tool used to support student reflection, and thereby learning, is the reflective journal. These may be difficult to use, time consuming to maintain and students may limit the openness of their reflections if they think their teacher may read them. Indeed, Pierides, Lemon, Wear, Knowles, and Fiford, (2006) found that students loathed reflective journals considering them cumbersome and untruthful. They suggested online discussion groups may lead to working with the collective consciousness, an intriguing concept for its potential to open students to multiple ways of knowing (Heron, 1992; Yorks and Kasl, 2002). Other technological options such as online journals and learning portfolios, blogs and chat rooms (Bosley and Young, 2006, Nückles, Schwonke, Berthold and Renkl, 2004) are widely discussed in the literature as are analytical tools such as force field (Lewin, 1939), critical incidents (Whiteford and McAllister, 2006) and scenarios (Santoro and Allard, 2008). Creative approaches may suit some students and disciplines: imagery and the visual and literary arts has been used to develop a reflective landscape for students of human geography (McIntosh, 2008); poetry and art to develop nurses' reflective practice (Newton, 2004) and digital video to scaffold and assess reflective thought (Petrosino and Cunningham, 2003, Rhine and Bryant, 2007). Approaches that provide learners with the opportunity to reflect on emotional experience contribute to whole person learning through the exploration of felt experience (Yorks and Kasl, 2002) which may lead to explication of felt or implicit knowing (Gendlin, 1968; Walkerden, 2009). Any tool chosen needs to acknowledge and respond to disciplines in their diversity of conventions, protocols, practices and approaches to reflection (Kreber and Castleden, 2009).

English language fluency, a factor in students' ability to express the level and depth of their reflections, may also hamper their ability to understand the complexities of critical reflection and to make the subtle distinctions that are required to learn to critically reflect. An implication is that there is no communication medium that will suit all students and this is important when considering the assessment of student reflections.

The studies reveal that while not all learners are, by default, reflective, they can be supported in developing the skills of reflective practice. This support may be in the form of reflective tools, and additional support may be needed to cater to diverse learning approaches, for example, for students from didactic learning cultures (Rarieya, 2005; Rothwell and Ghelipter, 2003).

Applying reflection to learning through participation - learning from the literature

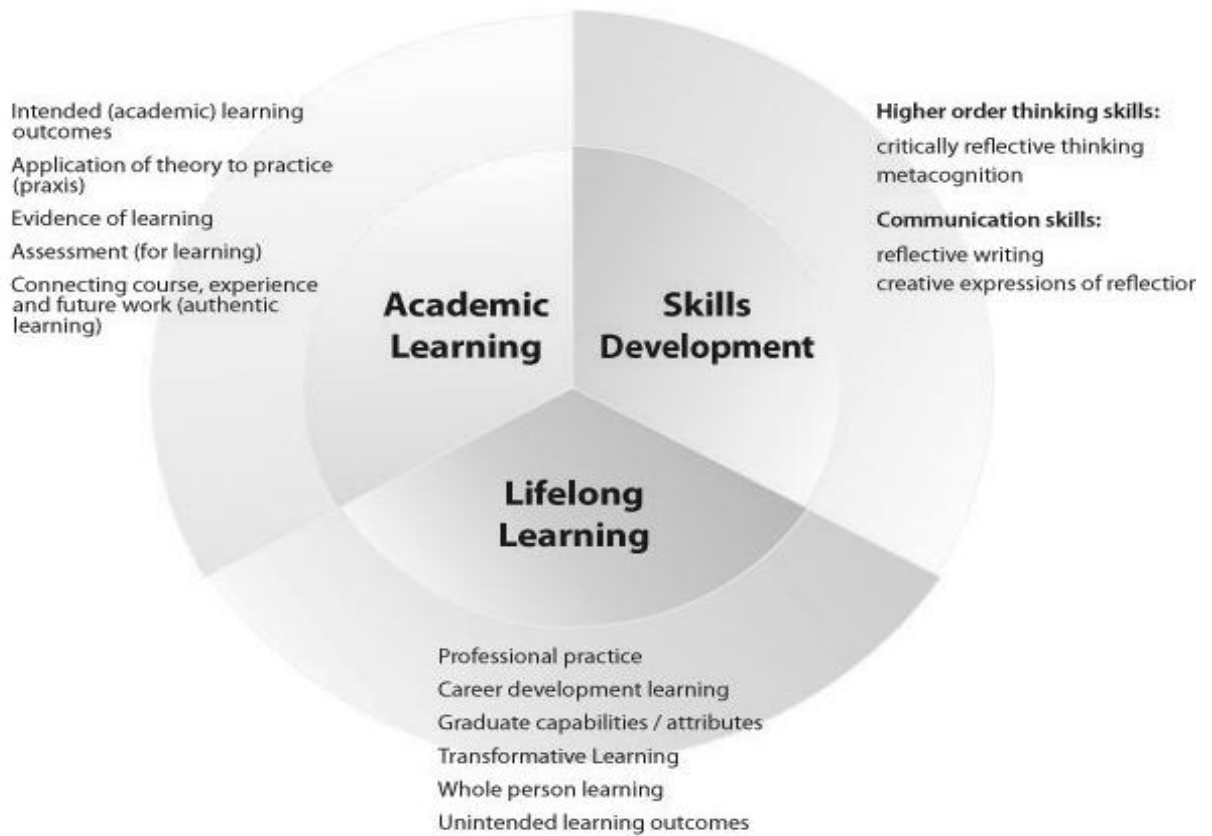
The literature describes many applications of reflection to learning through participation. From the literature we learn that there needs to be clarity around any role that reflection plays. This clarity can be achieved through an aligned curriculum design process. We have developed two models to support positive student learning outcomes from reflection for learning through participation.

Three roles for reflection in learning through participation

The first model classifies the many applications of reflection into three defining roles of reflection for, and in, learning through participation. Reflection is recognised as having a role in academic learning, in skills development and for lifelong learning (Figure 1).

Reflection has an important role within academic learning. Pivotal to this role is the concept of praxis (Habermas, 1973) whereby reflection provides an avenue for applying theory to the practice that is explored through an authentic participatory learning experience. A range of skills can be developed through reflective practice in participation units. These include higher order thinking and metacognitive skills and traditional and creative communication skills, all of which are foundation skills for academic and lifelong learning. The roles of reflection are not discrete. Rather, we intend that they be approached from the perspective of a learning system with each role treated as interrelated, and the learning opportunities identified within the roles as interchangeable, responding to the context and intended learning outcomes.

Figure 1. Three roles of reflection for learning through participation



The literature presents disparate guidelines and strategies for effective curriculum design for both reflection and learning through participation. A key message emerging from the literature is the importance of creating an effective climate and context for reflection by being clear about intent, purpose, meaning and expectations to support the student experience and reflective ability (Boud and Knights, 1996; Bringle and Hatcher, 1999; Kolb, 1981; McNamara and Field, 2007). Conversely, an absence or lack of clarity will detract from student learning. Two concepts, pivotal

to achieving clarity, are alignment and transparency. Alignment of curriculum, reflection and experience is key to effective curriculum design and thereby reflection, whilst transparency is a process whereby students develop a shared understanding of what is being asked of them as learners in relation to reflection. We have termed the synergy created by the two concepts (recognising the work of Biggs and Tang, 2007) *transparent alignment of reflection to experience*.

Our second model offers a synthesis of the key principles and elements of good practice (informed by works such as Boud and Knights, 1996; McNamara and Field, 2007; and Stein, Isaacs and Andrews, 2004) for curriculum design for reflection in participation units (Figure 2). These principles of intent, expectations and authenticity are not independent. They are interconnected and interdependent, and each element needs to be elucidated and understood by teachers and learners for reflection to be utilised effectively in learning through participation. We conclude that if the key principles are used to guide curriculum development and align reflection, then learning through participation will be enhanced.

Figure 2. Aligning reflection for learning through participation: Principles, elements and reflective prompts for curriculum design

Principle	Element	Reflective Prompts
Intent	<ul style="list-style-type: none"> • Intended learning outcomes specified • Experience linked to course 	<ul style="list-style-type: none"> • <i>What is the purpose of the experience?</i> • <i>In what ways are reflection and the experience aligned with the core structure of the curriculum (e.g. learning and teaching activities, content)?</i> • <i>How does reflecting on the experience contribute to the intended learning outcomes?</i>
Expectations	<ul style="list-style-type: none"> • Reflection defined • Assessment criteria/rubric explored • Importance communicated via weighting /allocation of marks 	<ul style="list-style-type: none"> • <i>What is meant by reflection in this context?</i> • <i>How will it be assessed?</i> • <i>What is the weighting (proportion of marks) that will be given to reflection tasks?</i>
Authenticity	<ul style="list-style-type: none"> • Reflection and assessment learning activities relevant and clearly linked to course and experience 	<ul style="list-style-type: none"> • <i>How do the reflection and assessment tasks relate to the course and the experience?</i> • <i>How do they contribute to authentic learning?</i>

Following the application of the principles to curriculum design, a reflective approach to defining the elements of curriculum design is encouraged to achieve transparent alignment. A series of self-reflective prompts that are grounded in the literature has been developed (Figure 2). These prompts are designed to be used by all participants in the learning process, that is, by teachers, by students and by workplace supervisors. The prompts aim to engage participants in a process of refining and aligning reflective activities and thus to achieve a shared understanding of expectations of intended learning through the participation experience.

Summary

The original intent of the literature review was to systematically identify evidence for the role of reflection for learning through participation. The research reviewed is inconclusive in establishing the relationship between reflection and positive student learning outcomes, presenting limited empirical evidence and theoretical underpinning to support the use of reflection in higher education research. However, the broad, diverse and prolific literature provides evidence of the practice of the application of reflection for learning through participation. This practice defies common academic protocols of research informed teaching; instead relying on evidence from practice, an almost universal application of reflection to experience based learning opportunities, widespread practitioner acceptance, positive anecdotal evidence and positive student perceptions.

From the literature we learn that reflection as a practice that supports learning through participation is valued. Our analysis classified these many applications of reflection into three themes, of which two were discussed. The first theme of reflecting for learning through participation established that reflective practice for learning through participation has the potential to encourage student engagement in deep learning (Leung and Kember, 2003) that may be transformative in nature. The second theme of the learner and reflection established that the ability to reflect is not innate, but may be learnt. This learning needs to consider issues of diversity, which may in part be addressed through multi-media and technological approaches to exploring and expressing reflection.

Establishing an effective climate for reflection begins with clarity around any role that reflection plays. Three defining roles of reflection for learning through participation are offered after analysis of the literature: academic learning, skills development and lifelong learning. A model for clarifying and working with these roles was proposed as a learning system in which the learning opportunities within each role are interchangeable and positioned depending on the context and intended learning outcomes. Two concepts pivotal to achieving clarity that emerged from the review of the literature were alignment and transparency. We learn that alignment of curriculum, reflection and experience is fundamental to effective curriculum design for the application of reflection to learning through participation and that a transparent process of developing shared understanding of what is being asked of students as learners in relation to reflection is important in establishing an effective climate and context for reflection. We termed the synergy offered by these two concepts transparent alignment of reflection to learning through participation and offered a model to describe the interconnected and interdependent principles and elements for effective curriculum design for reflection in participation units. Reflective prompts were suggested for discussion between students, teachers and workplace supervisors to develop transparent alignment and shared understanding of intended learning. After careful consideration of the evidence we concluded that if the key principles are used to guide curriculum development and align reflection, then learning through participation will be enhanced.

This initial exploration of the role of reflection in learning through participation indicates positive trends and relationships. These relationships exhibit a high level of complexity due to the multi-dimensional and interdependent range of variables involved. This paper concludes with a call for robust research evidence on the role of reflection in learning through participation. A challenge will be the development of a theoretical model that encompasses the many variables, relationships and dimensions of reflection and learning. In response, the authors are in the process of designing an ecological or holistic, systems-based approach to reflection that we have titled *Ecology of reflection* (Harvey, McMaugh and Coulson, 2010).

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Engaging Career Development Assessment: Maximising Learning in the Workplace

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Background: Career development is the focus of the placement program for Sport and Recreation Management degrees in the School of Sport and Exercise Science at Victoria University. Considerable foresight and initiative since 1996 has seen a traditional fieldwork program be transformed into a leading career development teaching and learning model utilising an existing placement program. Throughout the years a regular cycle of activities characterized by reflecting, planning, doing, reviewing and improving the program has ensured a flexible yet challenging framework to encourage students to become proactive and autonomous career builders whilst at university. The Career and Professional Development Program is embedded as core curriculum during the second and third year of the degree. It incorporates a number of linked components all working together to create a career culture that facilitates student career maturity and equips them to self manage their own career using key career development competencies.

Table 1: Overview of Career and Professional Development Program

<p style="text-align: center;">Regular Communication with students:</p> <ol style="list-style-type: none">1. Weekly emails offering placements or jobs opportunities.2. Access to placement ideas and contacts at an online placement management system.3. A monthly inspiring newsletter <p style="text-align: center;">Face-to-Face 30 hours in second year → 18 hours in third year Embedded Career Development Curriculum</p> <p style="text-align: center;">Two Placements 70 hours in second year → 175 hours in third year</p> <p style="text-align: center;">12 month industry based Mentoring Program starting in final semester</p> <p style="text-align: center;">Opportunity to apply for several competitive Paid Internships in final year of the course</p>
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Overview of Issue: The Career and Professional Development (CPD) program is student centred and designed to overcome the personal career and employability issues most university students face - lack of clarity regarding career direction, no substantial course related work experience and inadequate skills to effectively self market themselves.

Discussion: All assessment activities in the program are designed to motivate students and increase their knowledge. Assessment is a combination of experiential and academic experiences to advance student's ability to manage their own career development. A wide variety of assessment tasks are used throughout the program to bring students into career maturity and engage them with the learning required to become effective career builders in the 21st century. This paper will outline the types of assessment undertaken by students in the second year of the program and the rationale for each assessment activity.

Conclusions: Assessment assists students to grasp how learning in the workplace activities will assist them to launch fulfilling careers. Through the assessment tasks students become proactive career builders who initiate personal leadership regarding career establishment, whilst a student.

Keywords: Career development, assessment, engagement, student-centred, career placement

Introduction

From the students' perspective the primary objective of their education is to enhance personal employability to guarantee a rewarding career future. Simultaneously, there is now agreement in education and government circles that career development learning to enhance employability is included as part of core curriculum in higher education. Organizations ranging from the Australian Learning and Teaching Council and the National Association for Graduate Careers Advisory Service (Smith et al., 2009), and the Organization for Economic Co-operation and Development (Career Guidance: A Handbook for Policy Makers, 2004) are stressing the need to prepare students for the 21st Century career paradigm. In the new paradigm workers manage and drive their own career development including advancement, learning and career change (McMahon, Patton, & Tatham, 2003). For university students the ability to understand and apply career development principles, knowledge, skills, attitudes and experiences is now recognized as essential to transition from university and succeed in the future world of work.

To ensure a successful transition from university to work for students in the Sport and Recreation Management degree at Victoria University the Career and Professional Development Program (CPD) is designed **to overcome the personal career and employability issues most university students face**. They are: lack of clarity regarding career direction, no substantial course related work experience and inadequate skills to effectively self market themselves. These three legitimate real life concerns for university students are the themes driving all learning and assessment within the Sport and Recreation Management CPD program. (See table 2: Overview of Assessment tasks for Sport and Recreation Career Development 1).

In this discussion paper the following definition of employability provided by Yorke (2006) is implied.

Employability is taken as: a set of achievements – skills, understandings and personal attributes – that makes graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy (p.8).

Overview of Career and Professional Development Program

The CPD program incorporates embedded career development curriculum in second and third years of the degree as part of core curriculum. Career development learning occurs within lectures and tutorials and is linked to compulsory student centred career placements. As suggested by their title, career placements are focused on the student's personal career exploration and advancement. The students select, source and establish their own career placement completing a compulsory 70 hour placement in second year and a 175 hour placement in third year.

Career development curriculum is embedded within the second and third years of the degree to ensure learning is effective and sustained. This is supported in the literature from a social and cognitive psychological perspective as proposed by Yorke and Knight (2006a). Enhancing employability and learning for lifelong success using career development knowledge, skills and attitudes takes time. It will also require ongoing practice, application within more than one authentic work and networking situation and repetition of the concepts by a passionate career educator. Gradually students understand the significance and benefits of career development learning to their future.

CPD curriculum and placements are supported firstly by a monthly “*CPD Inspire*” newsletter containing student success stories concerning placements and career development. Students receive this monthly newsletter via email throughout their entire degree program. Each edition contains

several stories and photos of graduates with exciting jobs in sport and recreation to motivate current students regarding the impact and value of career placements for graduate employability. Many positive comments from students and fellow staff regarding the newsletter confirm that *CPD Inspire* has raised the profile of placements amongst students and colleagues.

Secondly, and also throughout their degree program, all students receive regular weekly emails recruiting them for placement or paid work opportunities specifically in the sport and recreation industry. For example, between January and December in 2008 a total of 409 emails, offering discipline related opportunities for placements or paid work were sent to students and alumni of the School of Sport and Exercise Science. Students are encouraged during career development tutorials and lectures to take up extra placement or part-time work opportunities in addition to the compulsory placement components of their course. They are taught to continuously expand their work experiences with the intention of building achievements or accomplishments for self-marketing activities such as their resume or during job interviews. This emphasis is supported by the view in literature that employability is the result of the students' ability to develop achievements that are proven by credible claims (Yorke & Knight, 2004).

As a consequence of the regular communication using the *CPD Inspire* newsletter and recruitment emails a career culture is generated that supports the emphasis on achievements and facilitates student understandings of how to improve their employability. During the students' entire time at university this communication continuously reminds them to think about and take actions for personal career development and management.

The third way curriculum in career development is supported is through the provision of two additional programs. The first, offered in the final semester of the course, is an internship program. Each year several student interns are paid around \$7,500 to work for 340 hours in local or state government leisure service departments to complete significant projects. Internships are competitive and students apply for an internship as they would for a job. Since 2003 41 internships have been sourced by the CPD coordinator totalling around \$300k in salaries for student interns. The second program, also in the final semester of the course, provides students with the opportunity to be mentored by a professional member of Parks and Leisure Australia. A mentoring relationship is established via a graded assignment. Subsequently the mentors are willing to mentor and offer support to students for 12 months as students transition from university into the world of work.

The CPD program learning, placement experiences and four supporting initiatives described above are provided to motivate and facilitate career development for each student and advance their employability upon graduation. In particular the career placements play an important role in development of each student's employability. During CPD classes and on CPD written resources career placements are presented to students using the metaphor of an expensive sports car with the caption – "Career placements are the vehicle we provide for students to drive to their career destination" (Dressler, 2010). Most students comprehend the importance of relevant industry experiences to their employability. Consequently they enthusiastically engage with their placements and internships to successfully bridge the employability gap between positions that do not require a degree to employment considered appropriate for university qualified graduates but difficult to obtain without relevant experiences.

Sport and Recreation Management Career Development 1

The CPD unit discussed in this practice based paper is titled Sport and Recreation Management Career Development 1 and is offered in first semester of second year in the degree. The unit incorporates delivery of career development curriculum through 30 hours of lectures and tutorials which is linked to a 70 hour industry career placement. The approaches to assessment practice utilised in the unit are explained below.

Assessment is a Vehicle to Facilitate Career Maturity

In the context of this article student “career immaturity” is defined as:

The student’s limited awareness of the benefits to be gained from career development activities for one’s future career prospects.

An inability to prioritise career development as important whilst a student

If career immaturity is not addressed early in the course students have a tendency to undervalue career placements and focus on gaining good grades in their discipline units, leaving career development until the end of their course. This “late onset of career maturity” leaves students at a disadvantage when seeking employment after graduation. Fortunately assessment drives learning (Chalmers, 2007) and also facilitates career maturity. Assessment and gaining good grades motivates students to take action. As Yorke and Knight (2004) have stated assessed tasks convey to students where they should invest effort, what is important and what counts in the curriculum. Therefore assessment is used in the Sport and Recreation Management Career Development 1 unit (CPD 1) to bring about a paradigm shift in student thinking that sets in motion career maturity. The criterion for selection of assessment activities in CPD 1 is that assessed activities provide student-centred opportunities to personally experience the process and benefits of career development.

In the words of Yorke and Knight (2006) “Employability can be enhanced through personal development planning, but success will depend upon the extent to which students see a “pay-off” for the efforts that they put in.” There are a number of benefits with “pay-off” from engagement in career placements that are emphatically and repeatedly promoted to students. Benefits for career development and improved employability are:

- (1) Gaining course related work experience to build achievements or accomplishments for self-marketing activities such as the resume, job interviews and the one minute career pitch. As Krumboltz (2009) states instrumental learning experiences occur when individuals observe the consequences of their own actions.
- (2) Establishing long term helpful career networks for the future
- (3) Exploring careers and possibly discovering and deciding on a career direction
- (4) Gaining important insights that motivate students to take actions to improve their employability early in the course. Having personally experienced the benefits of gaining relevant work experiences, students recognise that it will be problematic to leave aspects of career development work until the end of their course. They come to appreciate how limited work experience, achievements, accomplishments or networks may affect their ability to gain significant course related employment when they graduate. Career

placements are recognised as a solution to this foreseeable problem facing many university students when seeking employment at the end of their degree – no substantial sport and recreation industry work experience or achievements.

(5) Increasing the chance of gaining employment through happenstance or planned luck. (Krumboltz, 2009). For example, being in the right place at the right time. Career placements are presented as potential opportunities for students to be recruited for part-time or full-time employment in the sport and recreation industry. The concept of happenstance is discussed in depth later in this paper.

(6) Significant gains in career self-efficacy and sense of a professional identity (Scott & Ciani, 2008)

As previously mentioned students tend to be career immature in first semester year 2 of their degree. They require passionate, qualified career development lecturers to call their attention to all of the above career development and employability benefits who articulate and strongly emphasise the above points many times using different pedagogical methods. Students will maximise how they use the placement if they know, beforehand, what potential benefits exist for their career development. Academics who have personally experienced the benefits of applying career development skills, knowledge and attitudes to their personal lives are best placed to teach students with absolute conviction that “career placements are the vehicle we provide for you to drive to your career destination.”(Dressler, 2010)

“Students are more likely to take low-stakes, formative assessment seriously if they understand the purposes. This is not a matter of telling them once but of saturating programme and module handbooks as well as teacher’s discourses, with messages about the importance of formative assessment.”(Yorke & Knight, 2004, p.7)

Participation in CPD 1 assessment activities, career development learning and regular communication via recruitment emails and monthly online newsletters all saturate the CPD programme generating a career culture and focus for students long before graduation. By advancing each student’s career maturity CPD 1 assessment sets in motion students’ motivation to take actions, whilst they are a student, to dramatically improve their employability.

Overview of Sport and Recreation Career Development 1 Assessment Tasks

In Table 2 an overview of assessment tasks and how they are associated with previous tasks as well as interrelated with one another is shown. It can also be seen that all assessment is designed around the three interconnected career development learning themes. The themes as stated previously are: finding a career direction, learning to effectively self market oneself to improve career success and gaining course related industry experience whilst a student. Each assessment task is developed within class time through engaging pedagogical activities such as; role plays, peer review, sharing with partners, story telling, brain storming, speed dating and writing reflections.

Table 2: Overview of Assessment tasks for Sport and Recreation Career Development 1
Sport and Recreation Career Development 1
Semester 1 YEAR 2

Learning Theme: CAREER DIRECTION BASED ON SELF UNDERSTANDING

Assignment 1

Students use the Holland Self Directed Search career assessment tool and relate self understanding knowledge gained to target a sport and recreation career that matches their skills, interests and values. They are required to analyse, interpret and apply understandings of their results to recommend a personal career direction within the sport and recreation industry. This is a graded assignment requiring students to use higher order thinking skills.

Relationship of assignment 1 to upcoming assignments.

With the personal career insights gained from assignment 1 the student selects a career that they would like to explore. They then perform an exploration information interview with a person who is already working in the job they have identified as a good match for themselves within the sport and recreation industry.

As well students are more informed by their increased self understanding to choose where they will target their search for a 70 hour career placement.

Learning Theme: SELF-MARKETING SKILLS

Assignment 2

Students learn how to write an achievement focused resume and as a result recognize the importance of accomplishments or achievements to their employability. After writing a personal resume it is reviewed by 3 peers, a corporate worker and finally graded by the lecturer. This activity serves as an awakening alerting students to their empty personal resume and motivates them to gain relevant work experiences whilst a student. (Dressler, 2008)

Relationship of assignment 2 to upcoming assignments.

After realising they have an empty resume students are very motivated to use career placements wisely.

Students take their resume to their information interview. The resume can be used at the information interview in four ways. It can be:

- Shown to the professional being interviewed in order to identify skill gaps that the student will need to address by gaining more industry experience or studying certain subjects.
 - Given to the professional so that the student may be considered for future opportunities to help out on a project, complete a career placement or work part-time
 - Provided so that the professional may pass it on to others in their network that may be able to offer the student work or placement experience within the industry.
 - Shown to the professional to receive helpful feedback to the student concerning resume
-

format and content.

Assignment 3.

Students personally learn about and experience the power of networking by conducting an information, career focused interview with a professional working in a job of interest to the student. The interview provides associative and vicarious learning experiences by observing the environment and hearing the career story of a professional. (Krumboltz, 2009) The criteria for the interview is that the professional was previously unknown to the student and has been accessed using the students existing networks. This activity teaches students how to access the hidden job market where 80% of jobs will be found. As part of the formative preparation for this assignment students learn about, create and practice delivering a “career pitch” to use to self-market whenever an opportunity presents itself. The career pitch is used during telephone calls to secure an information interview. Students prepare and deliver a PowerPoint presentation containing six slides and photos to highlight the career they have explored via the information interview. The presentation is graded during tutorials.

Learning Theme: GAINING SPORT AND RECREATION INDUSTRY EXPERIENCE

Assignment 4

A 70 hour industry placement is sourced by the student using job hunting skills required when they graduate. The career strategy promoted for this first placement is that the student gains part-time employment in the sport and recreation industry following the placement.

After each placement a graded business report is written requiring reflection and use of higher order thinking skills to analyse the placement tasks and personal career insights. Students also write about 5 graduate capabilities developed during the placement using the “Situation, Action, Result” format typically used to structure answers during job interviews. Some of the report content also transfers directly into the student’s resume.

Relationship of assignment 4 to previous assignments.

The placement is focused on the student’s career direction previously identified and explored in assignments 1 and 3. Assignment 2 – empty resume- motivates student to use the placement wisely to improve employability.

Example of an Introductory Activity used to Engage Students with Assessment Tasks

This tutorial activity is designed to develop positive attitudes in students’ towards CPD 1 assessment. The activity introduces the concept of using the information interview, career pitch or placement to generate beneficial unplanned events for career development. Students write their personal career timeline story and identify chance events in their lives that were unpredictable but have already had a profound influence on their career path. By reflecting on their past students recognise that realistically career development will not always be planned, predictable or logical. The lecturer can then emphasise to students that we cannot predict what will happen through being

“out there” on career placement, using our career pitch whilst talking to people or networking however there is a chance that something beneficial may happen. For example the student may have a chance meeting at the workplace that opens up a job opportunity or they may discover their first career direction quite by accident. Students share their career timelines with one another and also read an article about planned luck career theory (Krumboltz, 2009). Discussion then ensues concerning how career placements or information interviews could be used to plan the students’ luck.

Clients [students] learn to engage in exploratory actions as a way of generating beneficial unplanned events. There are three steps in controlling unplanned events:

1. Before the unplanned event, you take actions that position you to experience it.
2. During the event, you remain alert and sensitive to recognize potential opportunities.
3. After the event, you initiate actions that enable you to benefit from it. (Krumboltz, 2009, p.144)
4. To further support the emphasis on being “out there” the students are told true stories about past students who have established their career through unpredictable circumstances. Inspiring placement and career stories are also published in the ‘CPD Inspire’ monthly newsletter. The current students enjoy and are curious to hear stories gathered over many years that illustrate happenstance or planned luck.

The career timeline story activity and understanding planned luck career theory help to take the pressure off students who feel anxious not knowing what they want to do as a result of their university course or overwhelmed by the responsibility of managing their careers. It helps focus students on enjoying the journey as they construct a career through accumulated experiences and achievements. The career story timeline activity precedes the information interview with a sport and recreation professional and as a consequence students are far more in tune to happenstance in the stories of others which further reinforces the “out there” message for personal career development.

Assessment Approaches

CPD 1 assessment is designed to increase knowledge and combines both experiential and academic activities intended to advance student career development. Good practice applied to assessment tasks include: a student-centred approach, explicit learning outcomes aligned with assessment, provision of specific and timely feedback, engaging students with the assessment process, using a variety of assessment methods and embedding graduate attributes in assessment tasks (Chalmers, 2007).

Student-Centred

Assessment tasks are always introduced and explained in the context of the personal benefit to ones’ career and usually accompanied by a true story of a previous student’s career success associated with the assessment task e.g. a job gained during the information interview task or placements that have led to fulltime careers.

The student sources their own career placement based on their personal career aspirations. “Students learn best from their own actions” (Krumboltz, 2009).

Classroom and Assessment Variety

A variety of assessment methods are used including: completing, interpreting and applying results from a career test to career direction, creating an achievement focused resume, conducting information interviews with sport and recreation professionals, creating and presenting a power point show and writing a business report concerning the placement experience.

Assessment Resources

Face to face teaching is supported by teaching and learning resources developed to reinforce lecture and tutorial content and facilitate assessment. This includes a 15 page placement report writing guideline booklet that utilizes learning modules to teach students to reflect and use higher order thinking skills to critically analyse placement tasks. Learning modules were introduced within the guidelines to ensure learning occurs at the time of writing reports when students are most receptive. In the report students write about graduate capabilities, employability attributes and skills developed during the placement. They are all written as achievements or accomplishments in a format that could be used during job interviews. The student is also asked to write the placement experience as it will appear on their actual resume. The final aspect of the placement report asks students to reflect upon career insights gained during their placement for future career direction, decisions and strategies. (Dressler, 2010)

Evaluation of the Sport and Recreation Career Development 1 unit

To date most evaluations completed for the CPD 1 unit have been informal surveys conducted by the CPD lecturer to appraise student learning, gain constructive feedback and for improvement and scholarship of teaching. Examples of survey results are provided below:

- Second year CPD 1 students grasp the relevance of utilizing the workplace as a site for learning and career development.
- In a 2009 written and anonymous survey conducted during in week 9 of first semester second year (n=37).
- 95% of students viewed placements as providing significant opportunities to develop employability by gaining workplace achievements and sport and recreation industry networks.
- 91% said that writing a resume assisted them in realizing the importance of gaining relevant work experience while a student,
- 91% said that knowing how to network was a very useful job search skill
- 91% said that the Unit of Study had taught them to be a self-directed career builder.
- Students find recruitment emails very useful for career development

In a 2009 survey conducted using email (n=65) 100% of a survey group respondents said the email alerts were very beneficial and to keep up this service. Students are assisted with career direction, self marketing and motivated to take actions to improve employability

In 2010 an evaluation of the Sport and Recreation Management Career Development 1 unit (n=26) conducted by an administrator, when the lecturer was not present, elicited very positive comments, outlined in Table 3.

Table 3: “Please describe the ways this teacher has most influenced your learning.”

Career Direction

“By finding out what we wanted to do in life and showing us a path on how to get there”,
Motivation to Take Career Development Actions

“Shown excellent examples of what students need to do”

“Through constant feedback and pushing us into the real world while highlighting possible career opportunities”

“Inspiring me and motivating me to go out into business and meet people to build networks so that I can successfully get a fulltime job at the end of my course”

“Excellent in motivating students to be aware of their career and to make it happen”,

“Helping me to understand more about career development and making sure I was job ready”

“Enabled me to approach people I don’t know in order to benefit my career path”,

“Giving us skills for life”

Self-Marketing

“Helped by giving ideas on the real world of job recruitment as well as hints or tricks of the trade in getting me where I want to go”

“By having assignments such as the information interview and placement and giving feedback on assignments after assessment”

“Helped build confidence and a professional resume”

Conclusion

Career development and career maturity are a way of thinking and best learned by personally experiencing the process. Embedding career development learning linked to a career placement during first semester year 2 of the degree facilitates student career maturity early in the course. It is the assessment tasks that allow students to personally experience the career development process and improve their career maturity. Once this happens students are more likely to start to initiate career enhancing experiences to improve personal employability throughout the rest of their time at university.

Assessment used for the Sport and Recreation Management Career Development 1 unit ensures students receive opportunities to develop and establish career development knowledge, skills and mindset to implement informed and insightful career plans. It is through the assessment tasks that students recognise that by their own actions they play the most important role in creating their future career reality. Hence the guiding principle and underlying theme for assessment is to select activities that are centred on the student’s personal career development.

Good assessment ensures students experience success and the benefits of using the career placement wisely. In the assessment tasks there is a strong emphasis on the development of personal workplace accomplishments or achievements, sport and recreation industry networks and students are encouraged to aspire toward a career that is a good fit and that will provide self fulfilment. The assessed activities described in this article have resulted in a paradigm shift in student thinking. Students grasp how learning in the workplace activities will assist them to launch

fulfilling careers and they do become proactive career builders who initiate personal leadership regarding career establishment whilst a student.

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Flinders Tourism Work Integrated Learning Programmes – evaluating learning outcomes

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Background: Flinders University Tourism programmes offer a range of work integrated learning opportunities at both undergraduate and postgraduate level. This paper evaluates three different undergraduate topics based on industry placements, research projects and tourism projects. This paper shows the tourism student's perspective and how they rated their learning between the three topics in question and whether one form of work integrated learning within the tourism industry is more effective than another.

Aims: The purpose of this paper was to identify student's perceptions of learning outcomes between tourism placements, tourism research and tourism projects.

Method: Quantitative survey methods were used to obtain the information. All eligible tourism students who had completed a work integrated learning topic (51 possible responses) were emailed a one page survey at the completion of their topics at the end of 2009. The survey was constructed with a combination of five point Likert (Poor, Average, Good, Very Good and Excellent) scales and open comment options for each question. A 48% response rate occurred.

Discussion: The findings of this paper suggest that the Tourism Work Integrated Learning programmes are positively perceived by students as worthwhile learning experiences providing a range of learning outcomes to enhance their career options. In particular, tourism projects (both independent research projects and non-research based projects) provide rich student learning opportunities not just in obvious ways such as research skills and the ability to work independently but show student awareness of very strong academic/industry connections. Furthermore, it is suggested that the students were able to apply their knowledge and skills in the workplace, gaining confidence from doing so, which in turn appeared to reflect in their positive attitudes towards the Work Integrated Learning programmes and their industry contacts.

Conclusions: The three modes of work integrated learning provided quite distinct learning outcomes from each mode of engagement to the Flinders Tourism students. In turn the work integrated learning programs were considered as the catalyst for connecting the knowledge gained from formal university study to the knowledge and skills needed for future career opportunities. Although the presented findings in this paper are representative of a small group, it is not unreasonable to suggest that the findings would be generalised further. Further research of the Tourism work integrated learning programs and the student perceptions of the learning outcomes could be conducted alongside research within another discipline in the same field.

Keywords: work integrated learning; tourism placements; learning outcomes; projects; research.

Introduction

Flinders University considers Work Integrated learning (hereafter called WIL) to be “directed or supported educational activities that integrate the theoretical learning on campus with its application in the workplace” (Flinders University, 2010; Smith et al, 2009). International Tourism at Flinders University seeks to blend vocational opportunities with academic rigour to stimulate the student's learning. Aside from readily recognised work integrated learning programmes such as guest lectures, field trips and case studies (Wolf, 2008), tourism also offers topics that connect students with the tourism and event organisations via placements, research projects and general project opportunities. This paper aims to evaluate these academic topics to evaluate the effectiveness of the learning that takes place from the student's perspective, looking at what is different between each of the three topics programmes.

The 2009 Work Integrated Learning Report conducted by Patrick, Peach and Pocknee outlines 43 different terms used to describe work integrated learning by various Australian university disciplines and government and industry reports. However most of these still refer to a student either actually being in a real or simulated workplace on a regular basis as in a placement and do not include the WIL programmes listed above by Wolf (2008).

Fletcher (1991) identified that personal development, career development and academic achievement were three outcomes of cooperative education; this was added to in 2001 when Parks, Onwuegbuzie and Cash noted the importance of work skills development. Work skills were considered the micro level day to day functions compared to the macro level skills required to manage ones career. This research is a combination of both skill sets as it looks at student's perceptions of how their knowledge and skills have improved on both a micro and macro level. Flinders University tourism topics incorporate some of these micro level skills within the academic programmes – students are taught components such as customer service, team work, cultural diversity and report writing as part of their studies prior to undertaking any WIL programmes.

This research has been undertaken as part of the “Curriculum and pedagogic bases for effectively integrating practice based experiences within higher education” study, a National Teaching Fellowship funded by the Australian Learning and Teaching Council.

Background to Flinders University Tourism WIL

International Tourism programmes at Flinders University have always had a limited, quota based intake. A core component has been the links with the tourism industry especially via placements and industry based research projects. A list of industry contacts has been built up and refined over the past twelve years which become the basis of all of the Tourism WIL topics. These contacts demonstrate long term relationship/partnership building and the integrity of the WIL programmes. Many of the industry providers have been with the programmes since the beginning of the tourism degree and these relationships cannot be overestimated. Valuable relationships which provide mutually beneficial programmes for students to learn in both the university and workplace environments are crucial (Patrick et al, 2009, Smigiel & McLeod, 2008).

Tourism industry placements require 160 hours of unpaid work in a relevant organisation selected by students from a suggested list and based on their interests and current skills. Students may be involved with a major festival and event, museum, with a tour operator or for a local government or state government tourism department. Students must attend the place of employment as any other employee would. Students undertake placements on either a full time or part time basis depending on their circumstances, primarily during the university end of year break.

Research projects such as marketing plans, visitor survey studies, feasibility studies, trails, brochures across individual businesses, local and state government organisations are matched by industry needs and academic interests of lecturers and students. Generally research projects are independent study conducted for a host organisation but not necessarily at their work site.

In more recent times other tourism projects have been added to the WIL programmes. These include the opportunity to participate in a Visitor Information Centre (VIC) on a regular basis – similar to a placement, or to do one off projects with or for event management organisations which may or may not require regular attendance at the host organisation. In all instances the programmes are driven by tourism academics who identify and manage a multitude of offers and opportunities

proposed by tourism organisations predominantly in South Australia but also interstate and overseas.

Tourism projects are opportunities provided by industry such as participating in regular shifts in a Visitor Information Centre or evaluating various events for design and management issues. The Visitor Information Centre is a local government run, volunteer based service for locals and visitors to a major Adelaide location.

In each placement, project or research project students are assessed not only on the formal written outcomes (which can include reports, papers, brochures etc) but also on reflective journals of their experiences. The student's journals are not included in this research paper.

The Tourism Work Integrated Learning Programmes compare to similar programmes where students are empowered to take control of their learning and apply what they have learnt in the classroom to a work environment (Graham & Lewin, 2000; Fleming & Ferkins, 2005). In each scenario students are briefed before undertaking the WIL activity by university staff who maintain regular contact with the student during the experience and students report back to their peers and topic coordinator at the end of the topic

Method

All current tourism undergraduate students who had completed an industry placement (CUTU 2005A Industry Placement 1), research project (CUTU 3006A Tourism Research Project) or tourism project (CUTU 3101A/2 Tourism Project 1 / 2), were invited to complete a survey about their learning experiences with these topics. The placement and research projects are compulsory final year core topics of the Bachelor of International Tourism whilst the Tourism Project is an elective topic. A second tourism placement elective topic is also available to students upon negotiation.

Some students had undertaken multiple topics i.e. completed each of the possible topics listed above. 25 responses (50%) were obtained from 51 possible replies. The sample size is small, consequently this study is to be considered exploratory in nature. The open ended responses have allowed a combination of primarily quantitative and e qualitative analysis to take place. There is an opportunity for the study to continue to increase response rates. The majority of the respondents gave valid, thoughtful reasons to support the rating they gave. Most responses, 48% were related to industry placements with an even spread over the other two topics. The survey was constructed with a combination of five point Likert (Poor, Average, Good, Very Good and Excellent) scales and open comment options for each question. Copy of survey in Appendix 1.

Findings

Students were asked how successful they rated their knowledge and skills gained from the WIL activity. Respondents rated their knowledge gained as excellent or very good (80%), with 60% for skills gained. Research projects which are individual, independent projects rated the highest, with 86% of those respondents rating both an increase in knowledge and skills as excellent. Responses, such as that below, outline the excitement that students felt and the use of the research and writing skills that they had developed at university being put into use.

...I was able to put all the research and writing skills into practice....the work I did had a real effect in the industry which was exciting (Placement Student)

Students were asked to evaluate their learning in a variety of categories including working with customers; networking; working independently; research skills, professional writing skills and exposure to industry standards.

By far the most learning that students felt took place with customers and clients was from tourism projects such as the Visitor Information Centre (100% excellent and very good) followed by 83% for placements. This is to be expected as customers are the main stay of a visitor centre compared to research projects, which is independent study and tends to deal with only one client.

Meeting people who may be able to help professionally is considered to be networking activity. In this instance students rated networking opportunities as 86% (excellent and very good) for tourism projects, 66% placement and 34% research projects. This is a seemingly high figure for the tourism project (especially if attached to the Visitor Information Centre and makes the researcher query whether students see visitors and fellow colleagues as a network opportunity more readily than business contacts they may make whilst on placement or conducting research. Alternatively perhaps the business networking opportunities are not as available or are more subtle.

All three WIL tourism topics scored highly in student's perception of learning to work independently, tourism projects 86% (excellent and very good), research projects 83% and placements 75%. With research projects being independent industry research it would be expected that they would rate well. The fact that the other two also rated highly is something to be aware of as tourism student responses are indicating that they learnt to work independently even in team situations and whilst on placement.

Over half (58%) of all respondents, rated their learning of research skills as excellent or very good. This was most prevalent in the tourism project (86%) and research project (80%), again this is to be expected with the research project. However it was a surprise result for the tourism project where the largest number of participants had been involved with a Visitor Information Centre. Students did not appear to differentiate their level of learning regarding research learnt from in-depth analytical research to quick specific research attached to a query from a visitor. The fact that the students rated their research learning skills so highly in a project which tends to have more of a vocational feel should not be underestimated, as any sense of accomplishment and confidence in their research skills is a rich learning experience (Coffield, 2000).

Student responses across all tourism WIL programmes perceived that their writing skills improved from the experiences (64%). This would be expected for research projects where the main outcome is a written piece of work. However, this skill also rated highly (72% excellent and very good) with tourism projects. The main difference in the written assessment with this topic is a major evaluation assessment which, whilst based on industry concepts is similar to other academic reports that students are required to conduct in non-work integrated learning based topics. Hence it is unclear whether in this instance the writing skills improvement is due to the work integrated learning programmes or academic rigour.

Students learning of and about industry standards were high for all three programmes (84% placement, 84% research project and 100% tourism projects). Students expressed how important it was to see industry standards discussed in the classroom come into play in real organisations.

From a university perspective it is important for students to make connections between any Work Integrated Learning based programmes and the concepts and theories they are learning in the classroom. This integration is the cornerstone of the Work Integration Learning programmes (Coll et al, 2008). The majority (84%) of student responses stated they could see good connections between their university studies and WIL experiences. This occurred over a range of areas as can be seen with the following comments and was not limited to one university topic.

...what had seemed like common sense was much harder when applied in the tourism industry and made me want to learn more...(Placement Student)

Report writing.... And also in a theoretical sense I could see how ideas pertaining to cultural tourism, community consultation and sustainability linked to the job. (Research Project Student)

Most respondents (88%), perceived their interest in the tourism industry had been stimulated from undertaking a work integrated learning topic.

It was both a challenging and rewarding experience – I got swept up in the excitement and possibilities of the industry. (Placement Student)

Respondents stated that the best things they had learnt from the WIL programmes was based on the experiences and exposure to the tourism industry and the contacts they had made, as several gained paid employment on completion of the programmes. The final question asked students if they had learnt skills that would further their prospective careers, 91% of respondents stated yes to this question.

...I was able to build up my confidence through extensive industry networking, a skill that should never be understated. (Project Student)

Whilst several others felt that all learning experiences assisted with their future and that no learning was a waste of time, every effort should be made by all parties to assist the student to learn on all levels – conceptually (eg knowledge), procedurally (eg skills) and dispositionally (eg knowledge and understanding of the organisation) (Billet, 2009). One positive outcome on the tourism project attached to the Visitor Information Centre was that students stated that learning had taken place working alongside volunteers. Whilst not an academic process, the respect and appreciation and in some cases change of attitude, toward the volunteers who were usually much older than the students was considered a rewarding experience for all. Volunteers are a core component across all sectors of the tourism industry, whether it is in arts, heritage or events (Deloitte, 2007) so to gain an understanding of how to work alongside volunteers is a vital skill.

Discussion

This study has shown that tourism Work Integrated Learning programmes are valued by students as worthwhile learning experiences providing a range of options for students to learn from and enhance their career options. These results compare favourably with other student experiences who acknowledge the benefits of work integrated learning (Weisz & Smith, 2005; Smith et al, 2009).

Previous studies of the Flinders University Industry partners revealed that the areas that were of most interest to them were adaptability, attitude and initiative (Fanning, 2006) along with the ability to competently apply their knowledge and skills in the workplace (Graham and Lewin, 2000). As can be seen from the results, students stated that they were able to do this and gained confidence from doing so, which in turn appeared to reflect in their positive attitudes towards the WIL programmes and their industry contacts.

WIL is not about experience for experience sake or work for work's sake (Britzman, 2003; Orrell, 2004) but rather the learning that takes place from the experience. The interaction that takes place with individuals within the organisation whilst on placement or conducting a project can be a major influence on the whole experience. Whilst there were a significant number of responses who perceived that they had gained both knowledge and skills from the WIL activity, there were still some students that stated that they had gained very little from the experience. This could be reflective of the engagement that the student felt with the workplace activities and interactions that occurred. If the student did not feel that they were in an inviting situation then they will not engage with any learning experiences that may be offered (Billett, 2009).

Communication before, during and after a work integrated learning activity is imperative between all partners in the process (the student, the university and the host organisation). If a student's communication issues are impeding on their learning abilities they need to feel that they have an alternative source either within the business or the university to resolve the issue. This ability to communicate is one of the most widely recognised employability skills (Quinn et al, 2008) and yet communication and confidence as seen in the student responses can be one of the greatest benefits of the tourism and other international work integrated learning programmes (Kelton, 2008; Willis 2008; Wolf, 2008).

Tourism projects, both research based and general provide rich student learning opportunities not just in obvious ways such as research skills and the ability to work independently but show student awareness of very strong academic/organisation connections (Smith et al, 2009). The high percentage of students who had their interest in the tourism industry stimulated often return to their university studies with a high level of motivation to continue to learn more and to achieve their career goals (Freudenberg et al, 2008). They are usually more prepared to share what they have experienced within their WIL with other students, which provides a further reflective learning activity. The gaining of confidence was reflected throughout the outcomes by respondents. If students feel confident, then their dispositional learning through understanding the value of the work will be more active and significant (Billet, 2009).

This study has considered the differences and similarities of student learning between the various Work Integrated Learning programmes in the tourism area but the data could also be analysed to view whether there were any differences in the learning depending from the first, second or further Work Integrated Learning topic the student had undertaken. Analysis of this area was outside the scope of this paper. A previous American study (Parks et al, 1991) did not find any statistically significant positive relationship based on the amount of Work Integrated Learning the students had undertaken, even though at a glance it would be a valid assumption that there would be a positive correlation. Conversely, it could be argued that each experience is an individual one and that other factors besides student confidence may come into play such as lack of connection with the workplace or communication issues with an industry provider.

Conclusion

Each topic in this study provides opportunities for student learning to benefit across a range of skills and knowledge, with no topic a major standout from the other. As students have expressed, each topic in its own way allows the chance to build on networks and increase confidence and knowledge to enhance not only the student's immediate employability skills but their longer term career prospects. Flinders University as an institution has made a clear commitment to work integrated learning (Smigiel & MacLeod, 2008) and the results of this preliminary study support the importance of the combination of academic and work integrated studies.

Further research could build on this study, either as a longitudinal study to consider if and how student learning outcomes vary over time or as a comparative study with other programmes, either with other disciplines within or outside of Flinders University. Another area of research from a student's learning perspective not covered in this paper, is who did the student learn from whilst undertaking work integrated learning – was it the supervisor, a team, a colleague or the cleaner. Having this information can strengthen the integration between university and industry knowledge and learning.

The study has shown that student learning successfully bridges the knowledge students gain from academia with the knowledge student's gain from experience. Even from a small sample that there are different learning outcomes emerging from different modes of engagement with Work Integrated Learning programmes by students with their host organisations, and that curriculum's should consider more than the traditional 'industry placement'.

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Evaluating teaching quality through measures of learning approach, satisfaction and attainment

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Context: The higher education sector in Australia is going through a period of substantial change and the Federal Government requires universities to internationalise and differentiate their activities. At the same time funding is being reduced and quality assurance audits such as Australian Universities Quality Agency (AUQA) committee have been put in place. The effect is a tightening of objectives that identify quality outcomes for students as a priority, amongst a range of other effects.

Aim: The evaluative model has been developed to determine the approach taken to studying an accounting subject by students has potential as a quality tool that university staff and management can employ. This study provides the prospect for teacher introspection on student attainment of technical knowledge, generic skills and core graduate attributes and hence university objectives such as Learning in the Workplace and Community.

Method: The theoretical modelling draws together the students' learning approach, achievement and satisfaction aspects to evaluate the context of learning provided by a specific subject in an accounting degree. The research method utilizes three existing surveys that have proven reliability and validity. The survey is an amalgam of the R-SPQ-2F survey (Biggs, 2001), Student Evaluation of Teaching (SET) survey (CEDS, 2002) and an adaptation of the cultural demographic detail from Cooper (2001). Student grades and marks were added to the data after the publication of student results. The evaluation of the model as a potential quality measure for higher education lecturers and management, and the reflection on achieving a deep approach by students forms the basis for discussion.

Results: Findings show that higher achieving students, defined by higher grades, adopt a deep learning approach in the subject. However, findings also indicate that students adopt a surface learning approach. An explanation of this apparent contradiction could be because students participating in the survey attach a different meaning and significance to memorizing because of their knowledge tradition. Subject satisfaction, as measured by the SET does not affect deep or surface learning approaches. Students who speak a language other than English as their first language take a deep learning approach to studying the subject. This contradicts anecdotal labelling of these students as surface learners. There is no significant first language effect between surface learning approach, achievement and subject satisfaction.

Conclusions: The measures of student learning approach, subject satisfaction and achievement provide a starting point for evaluating quality. With the pressure on universities to have substantive evidence of course and subject quality this project provides a measurable quality assurance model. The investigation of student approach to learning in the context of the accounting subject has provided the opportunity for reflecting on the various aspects that contribute to good teaching. The findings stemming from the research and consequent reflection can only improve outcomes for students.

Keywords: Measuring teaching quality, approach to learning, student satisfaction

Introduction

The higher education sector in Australia is going through a period of substantial change and the Federal Government is encouraging universities to internationalise and differentiate their activities. At the same time funding will depend upon attainment and improvement in student outcomes. Quality assurance audits such as the Australian Universities Quality Agency (AUQA) and, very shortly, the Tertiary Education Quality and Standards Agency (TEQSA) will require Universities to ensure minimum standards of programs offered are reached and improvement in student capabilities demonstrated. The Australian Qualifications Framework (AQF) has begun work on

establishing the minimum standards for disciplines. This will involve closer alignment of university programs with core graduate capabilities and differentiating capabilities such as Learning in the Workplace and Community. Effective measurement of graduate capabilities and importantly, the improvement in capabilities, should be undertaken over the duration of a program of study. This will necessitate student performance evaluation in subjects contained within a program. In this paper a model for measuring student attainment of capabilities, at the subject level, is evaluated from the perspective of students who speak English as their first language and those students who speak a language other than English (LOTE) as their first language.

The theory development considers the subject context and learning styles literature in a framework that allows a quantitative evaluation of the key variables; deep and surface approaches to learning, achievement and subject satisfaction. The relationships that exist between student approaches to learning, their achievement and subject satisfaction is investigated in the context of the learning environment taking consideration of first language. The evaluation of the model as a potential quality measure for higher education teachers and management, and the reflection on achieving a deep approach by students forms the basis for discussion. The need to provide demonstrated improvement in student capabilities will require a quantitative measure at the subject level capable of building over the program to verify attainment of desirable capabilities. As such this project contributes to the quality assurance literature and will be interest to teachers, university administration and the higher education quality assurance agencies.

This paper is structured as follows. A consideration of the literature relating to learning styles is followed by an explanation of the subject context. The research method that has been adopted for this study is described. A discussion of the results and the possible implications are provided in Part 4. This study is concluded by a summary of the preceding analysis, study limitations and suggestions for further research.

Literature review

Moving away from teaching methods that are procedural and only emphasise technical skills attainment to methods that promote critical, analytic and judgment skills as well as the technical skills is considered desirable and conducive to promoting active learning amongst students (Rebele et al, 1998 and Boyce et al, 2001) and deep approaches to learning (Marton and Saljo 1976a). The accounting profession, universities and employers value the development of these skills and identify them as necessary graduate capabilities. Jackling (1999, p. 5) encourages the use of learning styles measures in evaluating the quality of learning offered in accounting. As such this project will make a contribution to the evaluation methods for determining improvements in student capabilities.

The seminal work on learning approaches and the identification of the concept of deep and surface learning was undertaken by Marton and Saljo (1976a and 1976b). Entwistle and Ramsden (1983) further developed the theory of deep and surface learning by broadening the academic tasks inventory and introducing a third category; a strategic approach, to the learning styles literature. This can be interpreted as the motivation of students towards their learning (Entwistle, 1987). This initial research was extended by Biggs (1987) with the introduction of a learning approach inventories survey instrument which allowed large cohorts of students' learning approach to be evaluated. This research did not initially include accounting students but has been broadened by Gow et al., (1994) who surveyed 793 accounting and business students studying at Hong Kong Polytechnic using Biggs' SPQ (1987) to determine students' approaches to learning. Findings

indicated mean deep approach scores declined from first to second year but rose from second to third years.

Beattie et al. (1997) point out that the dichotomy of deep and surface learning is an oversimplification and defies the complexity of the concepts inherent in the notions of deep and surface learning. As a consequence, focusing on one measurement technique, the SPQ, whilst providing insight into student approaches to learning, may not provide comprehensive reasons for the adoption of a certain approach by students.

Ramsden (1979, 1981) discussed the context of student learning from the perspective of the perceptions of students. Ramsden (1992) considered the influence on student learning of perceptions of teaching, course assessment and course design. The emphasis is not on teaching competence, course design or assessment but rather on how students may construct reality from the course context that is presented. This allows teaching staff the opportunity to reflect on the contextual setting of courses.

The research method employed by Ramsden (1979, 1981) revealed that inappropriate assessment and greater than normal subject work load could result in students adopting surface approaches to learning. Effective teaching, reflected by lecturer enthusiasm and concern, promoted deep approaches to learning by students. Lecturers who taught badly encouraged surface approaches. The association between assessment, quality of teaching and approach to learning is clear (Ramsden, 1992).

Spady (1970) identified extrinsic motivation where the perceived value of learning was related to job prospects and intrinsic motivation where students learn for intellectual growth. Evans et al. (2003, p.508) provide further comment regarding specific subject situations such as assessment.

... situational demands such as the anticipated format of evaluation may influence a student to adopt a deep or surface level of processing. This puts a focus on student intentions: what students intend to get out of a learning task influences the approach they adopt and the resulting outcomes.

Biggs (1987a) defines an 'approach to learning' as a combination of students' motives (intentions) to learn and the (cognitive) strategy they use in learning. The resulting study process associated with the motivation elaborated by Spady (1970), Evans et al. (2003) and Biggs (1987a) has been further developed by Biggs (1978, 1979, 1987b).

The study process is affected by prior knowledge and learning experience, presage factors, and academic performance identified as product factors. Presage factors include characteristics such as intelligence, personality, home background and cognitive style whilst product factors refer to academic performance. Presage factors can affect academic performance by affecting students' motives for undertaking learning. This relationship was also identified by Ramsden (1992). Accordingly, the study process is expressed in terms of the motives for learning and the strategies that students use to achieve their desired outcome. The related approaches to learning have been described as motive/strategy combinations by Biggs (1987a).

The three approaches are constructively different as the deep approach is task focused while the surface and achieving approaches are affected by environmental factors (Biggs, 1993). This may be a partial explanation for excluding the achieving variable and the introduction of a modified SPQ survey instrument; the R-SPQ-2F (Biggs 2001).

Further elaboration of the subject context is provided by Hassall and Joyce (2001) who comment that;

... approaches to learning of individual students are context dependent and that, although the categorisations of 'deep and 'surface' could not be applied to individual students, they could be used to describe students in particular learning situations (Hassall and Joyce 2001, p. 146)

The student's perception of a range of environmental factors will determine whether a deep or surface approach to learning in a particular subject is undertaken. The quality of the learning context, lecturer enthusiasm, assessment, teaching methods, curriculum and delivery mode, can influence the perception a student has of a learning environment and therefore the approach to learning undertaken.

Sharma (1997) used the course evaluation questionnaire (CEQ) developed by Moses (1986) to measure the satisfaction that a student had with the subject context. The CEQ is the antecedent survey instrument of the student evaluation of teaching (SET) used in this study to evaluate student subject satisfaction. Sharma (1997) found that;

Students' learning approaches were found to be associated with their perceptions of the learning context. Hence, if we are to alter students' learning approaches, then we could start by altering the learning context. By discouraging reproducing orientations and encouraging meaning orientations to studying we may be able to produce better quality accounting students (p. 143).

Later Sharma (1997, p. 144) states that;

What is certain is that more research on students' learning behaviour and the influence of the learning context on students' approaches to learning and learning outcomes is required if we are to implement changes to the accounting curriculum to improve the quality of our students.

The encouraging of deep learning approaches through improved teaching abilities and methods goes to the heart of improving quality. Given the significant influx of overseas students, particularly from Asia, the effect that a LOTE has on students' approach to learning is also a worthwhile area of investigation. Marton and Saljo (1976a and 1976b) and Biggs (1978) state that if learning approach can be determined for a group of students then it is possible to achieve improved outcomes. This assumes homogeneity of the student group with regard to language and knowledge tradition (the way students are taught to learn) which are compounding factors in subject specific studies such as this project. The internationalisation of accounting education and the number of students studying in Australia from overseas with different knowledge traditions and speaking languages other than English as their first language poses problems with regard to achieving certain outcomes for all students.

Learning outcomes are dependent upon the learner and the subject context. The subject context in this instance includes the subject content, texts, media employed, lecturing style and competence and the myriad of difficult-to-describe activities that lecturers use to teach. Recent research in accounting education (Cooper, 2004) suggests that language and alternative knowledge traditions may play a part in the adoption of approaches to learning. The learning approach literature offers a basis for the evaluation of student approaches to learning and motivation. Studies by Turner (2006)

and Cooper (2004) focus on Asian learners and the misconceptions that arise when students have an alternative knowledge tradition.

This study focuses on a subject that has been designed to develop students' analytic and appreciative skills and provide them with the opportunity to develop further their mastery of technical skills (Birkett 1993). The subject is concerned with developing students' appreciation of the role that theory and practice has played in the development of financial reporting. The subject examines the role played and the interaction between the various parties who are deemed to have an interest in financial reporting. Contemporary issues, including measurement, conceptual framework and the development of accounting standards, ethics and corporate social responsibility are examined in the context of various theories of accounting.

Emphasis is placed on the development of generic skills by the accounting profession as evidenced by the development of the skills taxonomy (Birkett, 1993), the University through the specification of core graduate capabilities and the government through the Australian Quality Framework (AQF) desire to establish minimum standards. The set of skills described as generic include, adaptability, decision making, critical thinking, universal approach to problem solving, accepting of other opinions, collaborative approach and identification of personal strengths and weaknesses (Engel, 1997; Boyce et al., 2001). The emphasis on generic skills development is central to curriculum development in the subject.

Sharma (1997) investigated the relationship between learning approaches that students used, measured by the Approaches to Study Questionnaire developed by Richardson (1990), and the environmental conditions under which students undertook their learning, measured by the CEQ (Moses, 1986). Spicer (2004, p.194) studied;

... the relationship between students' performance (as assessed by their mark on modules) and different, but linked, measures of style, representing 'cognitive style', 'thinking style' and their 'learning approach'.

The inclusion in this study of the modified Study Process Questionnaire (SPQ) which was developed by Biggs as a measure of students' adoption of a deep learning approach, and hence quality, and a measure of student achievement adds to the work undertaken by Sharma (1997) and Spicer (2004).

Deep and surface approaches describe the ways in which students engage in the subject context of the specific task to be accomplished, whereas the achieving approach describes the way in which students organise their time and working environment. The SPQ was modified by Biggs (2001) to exclude the achieving variable with the objective of reducing the questionnaire size to provide a survey that was more manageable and capable of measuring quality. The result was the R-SPQ-2F. In this study achievement is considered by the mark/grade attained in the subject as a partial measure of achievement and the achieving approach discussed by Biggs is not evaluated. As the SPQ was originally developed in the late 70's there has been a need to modify the questionnaire as indicated by Biggs et al. (2001). The most common use of the SPQ is in identifying common learning approaches and with this understanding it is possible to establish appropriate teaching methods, curriculum, and assessment. The shorter R-SPQ-2F employed in this study measures only deep and surface approaches to learning and is used as a measure of quality.

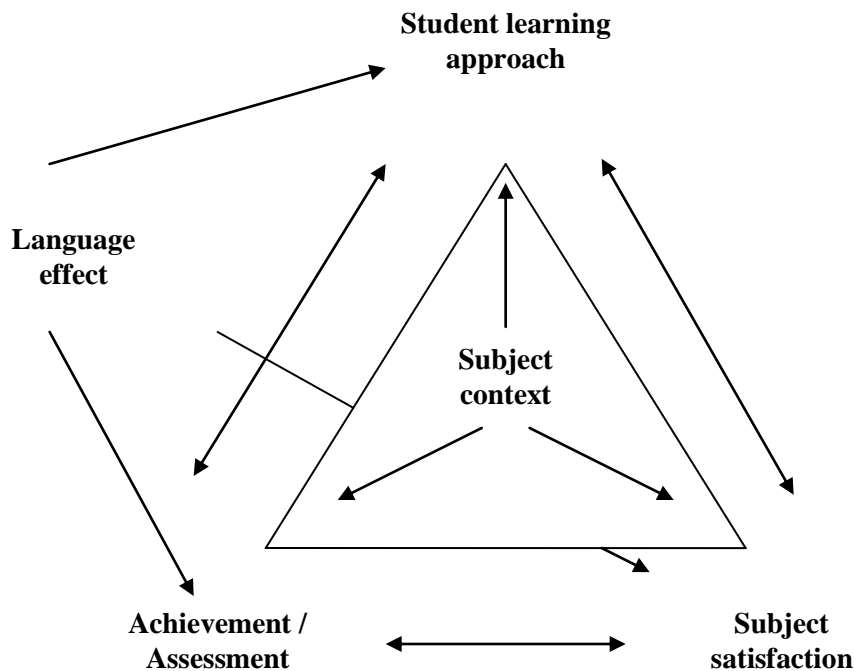
Identifying core graduate capabilities is worthwhile but evaluation and accountability measures need to be put in place to ensure that academic programs are delivering the outcomes required.

AUQA and TEQSA will require an improvement in graduate capabilities and for the University to be able to make the claim regarding capabilities a level of verifiability needs to be established. In the accounting degree not only must the program meet the core graduate capabilities specified by the University but must also meet the expectations of the accounting profession. The establishment of the AQF minimum discipline standards in line with the forthcoming OECD study of 30,000 students across 10 countries in the disciplines of economics and engineering will have the effect of internationalising the minimum discipline standards.

Student satisfaction is considered in terms of the context provided for learning and includes the quality of teaching delivery, web-site, teaching materials and teaching program to name some of the aspects learning context. Objective evaluation of the quality of teaching can be difficult to establish and a subset of the CEQ survey described by the University as the Student Evaluation of Teaching (SET) is used.

Achievement is considered in terms of an outcome, i.e., mark or grade. In this way the relationship between a students' approach to learning (deep or surface) and their achievement can be established within the context of the subject *post hoc*.

Figure 1: Contextual relationship between variables



In Figure 1 the relationships between the variables in the context of the subject is depicted. The context of the subject and the inter-relationship of learning approach, achievement and satisfaction provide an effective indication of the manner in which student needs are being addressed in the

subject. The compounding effect of first language is also evident. The thesis is that deep learning is encouraged through the subject context adopted taking into account first language therefore providing an effective quality assurance model.

Research method

The adoption of three existing surveys that exhibit reliability and validity and measure students' approach to learning (R-SPQ-2F survey, Biggs, 2001), student satisfaction (Student Evaluation of Teaching (SET) survey, CEDS, 2002) and an adaptation of the cultural demographic detail from Cooper (2001) provide an appropriate measure of the model depicted in Figure 1. Safeguards were put in place to ensure the reliability and validity of the project. It was highlighted to students that their participation in the survey was voluntary and that privacy was assured. The questionnaire was four pages long with 35 questions. Five questions concerned student demographics, twenty questions were related to testing the student approach to learning (R-SPQ-2F) and ten questions focused on student satisfaction with the subject (SET). Student grades and marks were added to the data after the publication of student results. The number of students who completed the survey was 113 or 89% of the population of 127.

Results and discussion

The relationship between students' country of birth and their first language is displayed in Table 1. The cross-tabulation indicates that there is little difference between a student's country of birth and their first language. On the basis of the cross-tabulation in Table 4 a students' first language, English or language other than English (LOTE), will be used to test between-subjects effects of learning approach (deep and surface), and subject satisfaction and achievement. The range of the three variables is as follows:

- Learning approach is 0 to 40
- Subject satisfaction is 0 to 45
- Achievement (subject assessment) is 0 to 100

Table 1: Students' country of birth and their first language cross-tabulated

	English First Language	Other Language	Total
Australian Born	64	2	66
Born Elsewhere	5	42	47
Total	69	44	113

International students face two distinct problems, differing knowledge traditions and first language is a LOTE. The two factors interact as English skills not commensurate with a required task will inhibit understanding and deep learning. International students are required, according to the student visa requirements, to have attained an IELTS of 6.0 for undergraduate study. Even so this may not necessarily equip the student with sufficient language skill to exhibit any more than a literal understanding of concepts. This provides a justification for using language as the discriminating factor between local and international students to test between-subjects effects.

The reliability of the scales used was determined using Cronbach's alpha statistic. The R-SPQ-2F section of the questionnaire has two main scales; the deep approach scale and the surface approach

scale. For the achievement variable, either the students' grade or actual mark will be used in statistical evaluation.

The reliability coefficient of the deep approach scale is 0.80. This is a high level of reliability given that the alpha values in the Biggs et al. (2001) study for the deep approach scale was 0.73. The Biggs et al. (2001) study had a much larger group of students in which accounting students were not represented. This may account for the greater degree of scale reliability in this study. The alpha statistic is acceptable at 0.74 for the surface approach scale. This differs from the reliability coefficient of the surface approach scale in the Biggs et al (2001) study which was 0.64. The reliability of the surface approach scale is higher amongst the accounting students surveyed than the Biggs et al. (2001) study. The SET questions were incorporated into the study questionnaire. The scale reliability coefficient for the SET scale was 0.84 which is a particularly high degree of reliability. The reliability of all the scales employed in the contextual quality assurance model are adequate and can be used to determine the effect that achievement and satisfaction have on student approach to learning and whether a deep approach to learning is promoted within the context of the subject.

The deep and surface approaches to learning by students and subject satisfaction were compared using the SET scale. Pairwise comparisons were conducted between deep and surface approaches to learning by students and achievement as measured by grade (grade categories HD 80-100, D 70-79, C 60-69, P 50-59, N1 40-49 and N2 0-39).

In Table 2 the difference between students whose first language is English and those students who speak a LOTE and the grade received can be ascertained. Grade numbers are below 10 students in all grade categories except the 'C' category (46 students) and the 'P' category (50 students). Given the number of students in the 'C' and 'P' categories it is not surprising that no comparisons could be made.

Table 2: First language and grade (achievement)

Grade	English		LOTE		Total	
	N	%	N	%	N	%
HD	-	-	1	0.9	1	0.9
D	8	7.1	1	0.9	9	8.0
C	26	22.9	20	17.7	46	40.6
P	30	26.5	20	17.7	50	44.2
N1	2	1.8	1	0.9	3	2.7
N2	3	2.7	1	0.9	4	3.6
Total	69	61.0	44	39.0	113	100.0

A MANOVA model was used with the deep and surface learning approach scores as the dependant variables and achievement (measured using the *Credit* and *Pass* grade categories as there were insufficient numbers in other grade categories) and subject satisfaction as the factors. Box's ($p = 0.212$) and Levene's (*Deep*, $p = 0.125$; *Surface*, $p = 0.053$) homogeneity tests have been satisfied with regard to this calculation. When subject satisfaction and achievement are treated as independent variables, only the achievement variable has a significant effect on the learning approach (effect on the approach to learning using the *Wilks' Lambda* = 0.778 $F(4, 132) = 4.418$, $p = 0.002$). Using the subject satisfaction variable as the factor and the approach to learning as the dependent variables, there is no significant effect on the learning approach (*Wilks' Lambda* = 0.557 $F(34, 132) = 1.319$, $p = 0.137$).

Figure 2: Relationships between key research areas

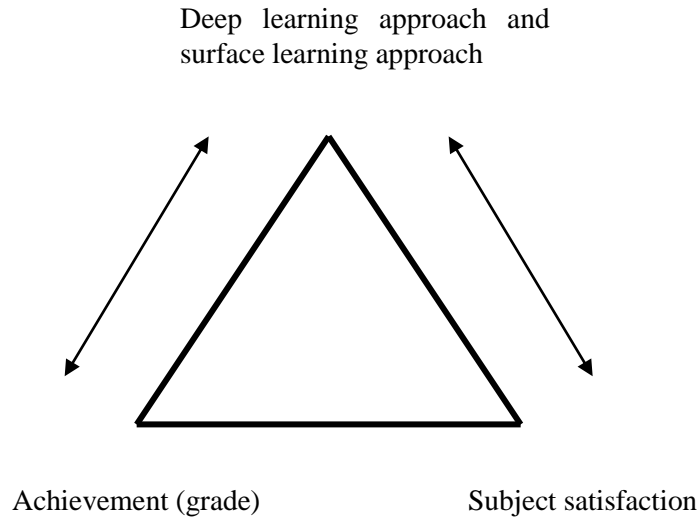


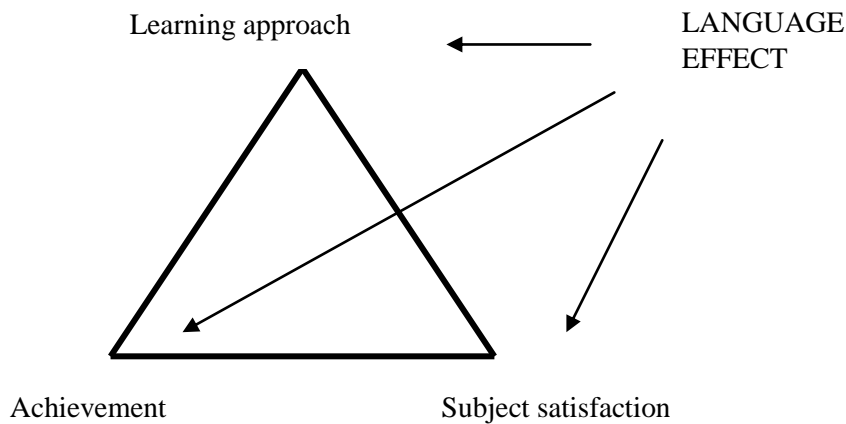
Table 3: Tests of between-subjects effects learning approach subject satisfaction and achievement

Dependant Variable	Factors	Sum of Squares	df	Mean Squares	F	Sig.
Achievement	Deep	253.824	2	126.912	4.594	.013
	Surface	403.712	2	201.856	5.816	.005
Satisfaction	Deep	719.318	17	42.313	1.532	.110
	Surface	670.059	17	39.415	1.136	.341

In Table 3, the deep learning approach and achievement ($p = .013$), and the surface learning approach and achievement ($p = .005$) relationships, are both significant at the 5% level. The deep learning approach and subject satisfaction, and the surface learning approach and subject satisfaction relationships are not significant at the 5% level. Further analysis later regarding language effects suggests that the difference in the deep approach is attributable to those students whose first language is other than English. Higher achievement defined by higher grades would indicate that students are adopting a deep learning approach in the subject. However, achievement also indicates that students are adopting a surface learning approach. Subject satisfaction does not affect deep or surface learning approach.

In Figure 3 the language effect on the key variables is depicted. The following analysis considers the relationship between language and learning approach, subject satisfaction and achievement.

Figure 3: Effect of language on key research areas



In Table 4 the mean, standard deviation and number of students for the variables (Figure 3) are compared between English as the first language and LOTE. There is a difference between the deep learning approach adopted by LOTE and English as first language students. The mean for LOTE students is much higher than English as first language students. The dispersion around the mean as indicated by the standard deviation is higher amongst LOTE student indicating greater variability in response. This is an interesting outcome but significance testing needs to be undertaken to determine whether any other differences exist. The mean difference for the surface learning approach variable is slightly higher for English as first language students. The LOTE students have a marginally higher achievement mean whilst the English as first language students have a marginally higher satisfaction mean. Further testing is necessary to assist in the interpretation of the descriptive statistics in Table 4.

Table 4: Descriptive analysis first language and key variables

Variable	First Language	Mean	SD	N
Deep Approach	English	16.25	5.09	65
	LOTE	20.74	5.68	42
	Total	18.01	5.74	107
Surface Approach	English	16.48	6.03	65
	LOTE	15.41	6.00	42
	Total	16.06	6.01	107
Achievement	English	58.77	8.68	65
	LOTE	59.07	7.43	42
	Total	58.89	8.17	107
Satisfaction	English	37.48	4.27	65
	LOTE	36.88	4.32	42
	Total	37.24	4.28	107

A number of tests was undertaken to determine the validity of the between-subjects effects. Multivariate homogeneity of the covariance matrices is tested using Box's M statistic which must not be significant ($p > .001$). This test is very sensitive, so the alpha of .001 is used. Homogeneity of variance exists (Sig. = 0.603) as the test is not significant at an alpha level of .001. Levene's test of equality of error variances tests the null hypothesis that the error variance of the dependent variable is equal across groups. The univariate tests for homogeneity of variance for each of the

dependent variables using Levene’s test of equality of error variances is not significant ($p < .05$) and therefore the homogeneity of variance assumption has not been violated. Having satisfied Box’s M and Levene’s tests the multivariate tests of between subjects effects of first language and modelled variables can take place.

Table 5: Multivariate tests of between subject effects first language and model variables

Factor	Dependant variable	Sum of squares	df	Mean squares	F	Sig.
First Language	Deep learning approach	514.810	1	514.810	18.126	.000
	Surface learning approach	29.329	1	29.329	.810	.370
	Achievement	2.330	1	2.330	.035	.853
	Subject satisfaction	9.062	1	9.062	.493	.484

In Table 5 a determination as to the statistical significance of the differences between those students who speak English as their first language and students who speak a LOTE and the variables deep learning approach, surface learning approach, achievement, and subject satisfaction is shown. The univariate F-tests for the dependent variables indicates which dependent variables contribute to a significant multivariate effect. To reduce the chance of a type 1 error the Bonferroni-type adjustment, ($\alpha/\text{number of tests}$; $0.05/4$) is made resulting in an adjusted alpha of 0.013. A perusal of Table 5 reveals that there is a significant difference ($\text{Sig}.0.00 < \alpha 0.013$) between those students who speak English as their first language and students who speak LOTE and the adoption of a deep learning approach. It was ascertained from the descriptive analysis that the difference was due to students who speak a LOTE. The implication for this is that those students who do not speak English as their first language take a deep approach to their learning more often than those students who do speak English as their first language. What is not evident is whether the reason for taking a deep approach is because they speak a LOTE or because of the difficulty of the subject.

Whether studying the subject encourages deep learning in students and the effect of first language has been approached through a quantitative investigation. The subject context demonstrates the need to focus on analytic and critical skills (generic skills) that University and the accounting profession actively promote through Core Graduate Capabilities (CGC) and the profession through discussion papers (Birkett, 1993). The problem of transition from home country to studying at an overseas university experienced by students provides the basis for an examination of the effect of first language (Turner, 2006). The literal or denotative English level of some international students has lead to criticism that international students are surface learners which further investigation reveals is influenced by the knowledge traditions. With the internationalisation of higher education and the influx of students into Australia the issues surrounding a LOTE and literal English understanding are a concern.

The value of this study is in suggesting a workable quality assurance model that indicates whether students are responding to the teaching practice within a subject by adopting a deep approach to learning. Universities specify desirable attributes that their graduates should have upon graduation and critical thinking or deep approach characteristics would satisfy the majority of these attributes. However, testing of the attributes within an acceptable and comprehensive quality assurance framework does not often take place. The student perspective of the teaching or subject context is evaluated through the SET but the evaluation of whether the subject encourages deep learning in students is not presently assessed. Figure 1 could be considered an effective quality assurance model for determining improvement in students’ core graduate capabilities and should be evaluated across a variety of subjects and disciplines. Whilst the findings of this study cannot be related to

other subjects the idea of a quality assurance model applicable in a variety of disciplines and subjects is a significant contribution.

Conclusion

The intention of the paper was to test an indicative model of evaluating subject quality and the improvement in students' core graduate capabilities. The research method is supported by comprehensive literature and utilised three existing surveys that have substantial reliability and validity. The Cooper (2001) survey adaptation of cultural background was used for gathering demographic information. The R-SPQ-2F (Biggs et al., 2001) measured the deep and surface approaches to learning and the SET (derived from the CEQ) assessed student satisfaction. A student's mark and grade in the subject were also added to the data collected. Students' first language was used for further analysis as English skills not commensurate with learning tasks will inhibit understanding and deep learning.

Analysis of the primary research areas revealed that students did adopt a deep approach to learning but also adopted a surface approach. This outcome is similar to findings by Sharma (1997, p. 142) who found that "students' learning approaches were not distinctively surface or deep. Their approaches were more in the grey area". Those students who spoke a LOTE took a deep learning approach in the subject which is a similar outcome to the Gow et al. (1994) study.

The finding that students take both deep and surface approaches to learning in one subject is a curious finding. Perhaps the situation can be explained by a number of issues that confronted students. A misunderstanding of the SPQ survey may have resulted in students not having understood the difference between memorisation and rote learning. The questions relating to this area in the SPQ survey are not necessarily easy to distinguish and have resulted in an ill-defined concept that does not appear to take account of differences between occidental and oriental knowledge traditions. LOTE students take a deep approach because their knowledge tradition encourages memorization rather than rote learning (Gow et al., 1994; Cooper 2004). The labelling of LOTE students as rote learners and therefore surface learners when these students come from a knowledge tradition that values repetitive learning is fraught with problems (Volet and Renshaw, 1996).

This raises issues with validity and interpretation of surface learning approach questions in the R-SPQ-2F by students from different knowledge traditions. The findings however, reveal that higher achieving students, regardless of first language, use both deep and surface approaches to learning with an emphasis on the former. When distinguishing between students on the basis of first language those students whose first language is a LOTE take a deep approach to their studies in AFA. This contradicts anecdotal labelling of LOTE students as surface learners.

Another possibility for students taking both approaches to learning is because accounting is quite procedural and this necessitates repetitive learning. Biggs (1993) acknowledges that rote learning by itself does not necessarily mean that students are taking a surface approach and that in certain situations rote learning may be appropriate. However, if the later were the case, the expectation would be that all students' would approach learning in the same manner. Another alternative could be that students whose first language is not English need to repetitively learn their subject material. Of course, repetitive learning is only one aspect of the surface approach. The above discussion has support; 'The surface approach scale as it presently exists on the SPQ does not appear to be well defined' et al. (2003, p527).

The finding that subject satisfaction does not affect learning approach has implications for the use of the SET to measure quality. Biggs et al. (2001) point out that the shorter R-SPQ-2F used in this study measures approach to learning adopted by students and aims to be a measure of quality. The SET largely addresses issues related to subject context and whilst a quality context is important for student learning the focus should be on determining whether the students' behaviour has been positively modified. The quality measure should therefore reflect the positive modification of student behaviour which was the aim of Biggs et al. (2001) with the R-SPQ-2F. As a consequence Figure 1 is a partial depiction of quality.

Tentative conclusions are that repetitive learning (memorisation) is characteristic of some knowledge traditions and may lead to inappropriate labelling of LOTE students as surface learners. Greater understanding of alternative knowledge traditions and learning styles is essential with the internationalisation of education. Whilst indicating that the subject does encourage a deeper learning approach and therefore is indicative of the subjects quality further work needs to be undertaken to evaluate the assessment techniques employed.

Limitations

This study is context based so generalising the findings to other subjects within accounting or elsewhere is inappropriate. It seems that the questionnaire that has been developed for this project is quite effective for explaining whether students adopt a deep or surface approach to their learning in the subject and also whether they are satisfied with teaching practice but it is less effective in pointing to areas of possible subject improvement. The inclusion of focus groups as part of the research method would improve understanding of LOTE issues and the effect of alternate knowledge traditions. The study has been conducted from the perspective of a western knowledge tradition and therefore suffers from a lack of accommodation of alternative traditions.

The participants in this study numbered 113 which precluded or limited further statistical relationship testing. Relating the different assessment methods used such as case, short answer, accounting problems and multiple choice to the outcomes of students in terms of deep and surface approaches to the issue of language may have resulted in greater information if the number of participants was higher. Other studies such as Biggs (1994) and Cooper (2001) had a greater number of students participating and this enabled more rigorous statistical analysis to take place. Widespread use of the model across a range of subjects and disciplines would therefore be affected.

With the pressure to have quantifiable evidence of subject quality this project provides a substantive measurable method. However, if this is to be successful then there must be more intensive training and support for teachers and students. At the moment training and support for the changes taking place and the research required are erratic and patchy as a result of financial constraints and not because of the lack of commitment or enthusiasm of teachers. Supporting and disseminating this type of work will allow interaction and further development as issues of quality become more important. Measures of student learning approach, subject satisfaction and achievement are not perfect but they provide a starting point in what is potentially the beginning of a new era in quality evaluation.

Further study and implications

The encouragement of deep learning, as indicated by high achievement and defined by higher grades, would indicate that students are adopting a deep learning approach in the subject. Findings also indicate that students are adopting a surface learning approach. It could be argued that differentiating between 'P' and 'C' is hardly a measure of significant deep learning and many would argue is merely a confirmation of surface approaches. Anecdotally, over many years results have tended to be in the 'P' and 'C' range with students who demonstrate connotative understanding obtaining 'C' grades.

With measuring quality high on the agenda of all universities in Australia the problem becomes one of finding a research tool that is quick, easy to manage, easy to interpret, is not capable of misinterpretation or confusion by participants (students) and can be administered on a regular basis. Whilst the difference memorisation and repetitive learning can be described framing survey questions so that respondents can differentiate between the concepts is a difficult proposition. This issue has not been specifically addressed in this project but is a useful way of advancing the literature. The question that is raised stems from whether students whose first language is English are more capable of distinguishing between memorisation and rote learning and whether those students who speak a LOTE as their first language can think conceptually in English and make the finer conceptual distinctions. Research of this nature would be quite useful.

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Quality curriculum and career development: using an evidence-based approach to embed career development learning in the curriculum

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Universities are increasingly accountable to government agencies, industry bodies and students for the quality and content of the courses (programs) on offer. Underpinning the overarching concept of what constitutes a quality course are questions pertaining to the role of universities and competing agendas of research and teaching. The effectiveness of universities in equipping graduates for employment is also hotly debated in many sectors of the educational and corporate world. As a result, discussions on incorporating career development learning into curricula have gained momentum. Curtin University completed a three year strategic project at the end of 2009, Curriculum 2010 (C2010). The project involved several key tasks, the largest being the Comprehensive Course Review of every course at the University. Tools were developed to support teaching staff and ensure an evidence based approach to this process. The process of comprehensive course review required a cultural shift within the university and a rethinking of the features of a quality course and what a graduate should know and be able to do upon completion. One of these tools, the curriculum map, recorded core elements of the curriculum such as learning outcomes, assessments, the weighting, timing and value of assessments and the level of thinking using Bloom's Taxonomy. During the course of the project, links were made with many sectors of the university including The Careers Centre. As staff from The Office of Assessment Teaching and Learning and The Careers Centre began to collaborate, it became apparent that the curriculum map could be easily modified to indicate where career development learning was occurring in the curriculum and thus maximise opportunities to embed career development learning in the course experience. Within Higher Education the knowledge and skills associated with career development learning has been achieved typically through the delivery of career services by 'stand alone' Careers Centres or on an informal basis through Faculties and extra curricula activities, as a value added support service. While Career Centres have formed a part of the University infrastructure for the past 15 years, it is challenging to have system wide impact when the Careers Centre is isolated from academic faculties across the University. To be effective in the provision of resources and support to assist students and graduates nurture well rounded career development skills, it is imperative that higher education institutions incorporate career development learning into courses by working collaboratively with Teaching and Learning Centres. This paper documents a case study showing how the curriculum map was used to highlight where career development learning was occurring and how the gaps were identified. Suggestions for working with staff are explored and ideas for further research and modifications to the process are determined. This paper highlights the advantages of establishing networks and partnerships within the University to facilitate sustainable and systemic best practice through the sharing of resources, expertise and processes. This paper will highlight an evidence based approach for incorporating and assessing career development learning in the curriculum through the use of a curriculum map which generates a visual representation of where career development learning is addressed across a course and identifies gaps in the curriculum.

Keywords: Curriculum mapping, career development, partnerships, assessment

Introduction

Universities are increasingly accountable to government agencies, industry bodies and students for the quality and content of the courses (programs) on offer. Underpinning the overarching concept of what constitutes a quality course are questions pertaining to the role of universities and competing agendas of research and teaching. The effectiveness of universities in equipping graduates for employment is also hotly debated in many sectors of the educational and corporate world (Lees, 2002). As a result, discussions on incorporating career development learning into curricula have gained momentum (Watts & Butcher, 2008; Holmes, 2001). This topic generates questions about the role of universities and how they conduct business. Careers advice and preparation in relation to employment is critical in a university context since employment is recognised as a key exit outcome for students.

Using a case study approach, this paper outlines where career development learning occurs in the curriculum of two large undergraduate programs. A description of the process is included which highlights the benefits of the Careers Centre and the Teaching and Learning arm of the university working collaboratively to optimise outcomes for both sectors. The paper also describes the tools and resources used to engage staff. Ultimately, through the process of investigating where career development learning is occurring across a program of study and participating in robust conversations, the concept of preparing students for the workplace is given increased consideration by teaching staff.

Background

Employers, government and professional bodies have consistently urged universities to better prepare graduates for the workforce (Precision Consultancy, 2007). Work ready attributes, also known as graduate attributes or employability skills, are now a key element of most university courses. While they may vary in precise wording, essentially these attributes focus on skills such as teamwork, communication and problem solving; skills considered to be essential for success as an employee. The challenge lies with universities to ensure a well rounded and comprehensive course experience for students culminating in work ready graduates (Watts, 2008). A strong education system ensures citizens are resilient, informed, adaptable and confident to manage the consequences of the new global economy with all its opportunities and threats (Review of Australian Higher Education, 2008). This suggests a university education is far more than mere knowledge and technical know-how; it is about equipping students with strategies and skills that facilitate success and survival in a competitive and demanding environment. Watts,(2008) considers career development learning as a means of acquiring competencies that facilitate lifelong and sustainable employment . This encompasses not only employability skills but also the skills to manage a career (Smith et al, 2009).

A curriculum model where careers service works closely with teaching departments is paramount to a well rounded course. Foskett and Johnston (2006) emphasize that for effective careers development, it is crucial that career practitioners and curriculum developers work collaboratively. Yorke and Knight (2006) believe such an approach will enhance the curriculum by incorporating the development of employability and career management skills into courses. These authors believe that as career development learning becomes widely embedded as part of core curriculum it may have considerable implications for the structural position of careers services within

institutions. Strategic positioning of career practitioners and Curriculum Developers will enhance synergies and facilitate collaborative working opportunities with teaching staff to create meaningful and relevant curriculum for students, culminating in work ready graduates.

According to Lees (2002) the issue of whether employability skills (and therefore career development learning) should be embedded in the curriculum or a bolt-on supplement is at the core of the employability debate. Currently in Australia both modes are employed (Smith et al, 2009); however, there is strong argument for embedding and integrating these skills across the curriculum (Lees, 2002; Yorke & Yorke 2007; McIlveen et al, 2008). Foskett and Johnston (2006), outline five possible structures which range from offering discrete units to embedding employability skills throughout the curriculum. However, all models are underscored by the need for career practitioners and curriculum developers to be working closely together.

Law (2005) argues that careers education is not suitable as a stand-alone academic subject, and the integrating of careers development in curriculum should be a priority. Similarly, recommendations provided by DEEWR (2008) state that employability skills should be explicitly identified in all university curricula. Career development learning has greatest impact when embedded throughout the curriculum but there are a number of obstacles to achieving this, including a lack of resources and infrastructure, and that of overcoming resistance to the idea. According to Yorke and Knight (2004) there is a considerable amount of overlap between the aim of supporting good learning and that of enhancing employability. By creating clear and concise learning outcomes supplemented with quality learning experiences, embedding employability and career development skills should follow.

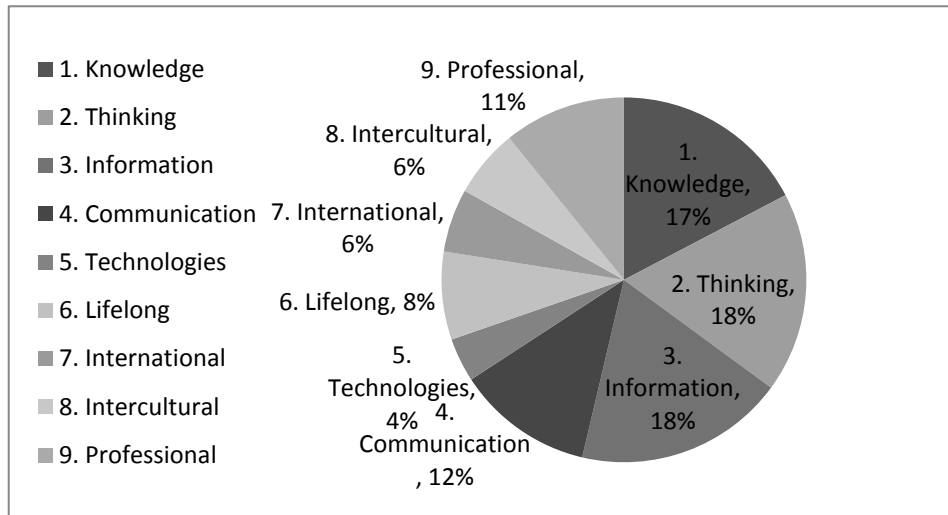
Career development is an essential component of the curriculum. Students, graduates, employers and Government are critical stakeholders who clearly want a university education to contribute to developing employable, self-managing individuals. Morley (2001) believes higher education is designed to serve social-equity goals by increasing access for disadvantaged groups. According to Morley, attention also needs to be paid to enhancing their subsequent success in the labour market. Career development learning offers an additional dimension to institutional strategies designed to foster the employability of students. It makes the value of such strategies transparent to students and strengthens the sustainability of their benefits. The Quality Assurance Agency for Higher Education (2010) states that higher education institutions should prepare students not only 'for a successful transition to employment' but also 'for effective management of their career thereafter'.

Scott (2008) stated that students expected personal and vocational relevance and coherence in what is being studied and assessed and the capacity to be appropriately employed on graduation. Ultimately how can universities meet this expectation? Much has been written about the need to build employability skills into the curriculum but little on how to actually achieve this. As discussed by Smith et al (2009) the extent to which career development learning is embedded in higher education curriculum is unclear and the evidence of the efficacy of curricular interventions in relation to this theme are limited (McIlveen et al, 2008; Bimrose, Barnes & Brown 2005).

Based on the Australian Blueprint for Career Development (See Appendix 1), Curtin University has incorporated the mapping of career development learning competencies into the curriculum map. The curriculum map is designed as an Excel document which generates visual representations of various elements of the curriculum. Figure 1 provides an example of data from the curriculum map presented in graphical format. The chart in Figure 1 is generated from data on an Excel spreadsheet and demonstrates the spread of Graduate Attributes across a 3 year undergraduate degree program. Visual representation of different curriculum elements such as the example in Figure 1, provide the

stimulus for discussions with teaching staff through identification of strengths and deficiencies in the curriculum.

Figure 1. Emphasis of Graduate Attributes across a course



Comprehensive Course Review

Curriculum 2010 (C2010), a strategic 3 year project at Curtin University in Western Australia, culminated in December 2009. A key task of the project was for all viable courses at the University to undergo Comprehensive Course Review. This process aimed to ensure all courses at Curtin are consistent in shape, structure and standard; and have clearly articulated and intellectually challenging unit learning outcomes with assessment tasks designed to enable students to show their achievement of those outcomes (Oliver et al, 2007; Oliver et al, 2007). To achieve the outcomes of the C2010 project and ensure an evidence based approach to engage teaching staff, the curriculum map was developed and enhanced through-out the life of the project.

Curtin has adopted the triple-i curriculum which emphasises three key areas of the curriculum: industry (graduate employability); international, Indigenous and intercultural (global citizenship); and interdisciplinary (rich educational choices). Embedding these components into the curriculum is challenging and requires a plethora of expertise. Hence, in the review of existing curriculum and the development of new curriculum a collaborative approach was deemed essential. Such an approach maximises available resources within the University. The Careers Centre, with industry contacts and expertise in developing work ready skills, is an obvious representative to have around the table at critical stages of the review process. Credibility of the process is strengthened for the Careers Centre through the partnership with the Teaching and Learning centre (Watts & Butcher, 2008).

Definitions

The Australian Blueprint for Career Development is a framework for designing, implementing and evaluating career development programs. The Blueprint identifies the skills, attitudes and knowledge that individuals need to make sound choices and to effectively manage their careers. (<http://www.blueprint.edu.au/index.php/framework/>) See Appendix 1 for further details.

Career Development Learning (CDL) describes curriculum content where attention is paid to helping groups of individuals to make educational, training and occupational choices and to develop the competencies to manage their careers (OECD, 2004).

Common Ground

Much of what universities have to offer is implemented through their curriculum (Watts et al,1996) . It is in relation to this wider curriculum that the importance of career strategies and programmes are frequently measured. Particularly challenging for the Careers Centre is the need to continually re-negotiate within a wider agenda, the position of worth (or lack of) that CDL is perceived to hold within the university (Holmes, 2001). Advancing CDL requires ongoing attention to the curriculum agenda.

The emerging collaborative relationship with the Office of Assessment Teaching and Learning at Curtin has facilitated the process of beginning to embed CDL into the curriculum of Curtin courses. The aim is to move the Centre's involvement in the curricula beyond the occasional workshop to intensive involvement in curriculum development and design.

A key outcome of the partnership is the acceleration in which the Careers Centre has become part of the support in delivering employability skills and career management skills into the curriculum. The Australian Blueprint for Career Development and the curriculum mapping tool provides Curtin with a mechanism for demonstrating where and how CDL occurs in the curriculum. This process becomes more manageable and achievable through use of the Curriculum Mapping tool developed for the purpose of Comprehensive Course Review at Curtin. However, it is the support in developing and implementing strong pedagogical practice in the delivery of CDL where the Careers Centre at Curtin attaches considerable importance to the working relationship with the Office of Assessment Teaching and Learning.

Case Studies

Two large undergraduate degree programs which had previously completed the Comprehensive Course Review process through the C2010 project were selected for the case studies. The Heads of School, Directors of Teaching and Learning for both Schools and Course Coordinators were consulted about the process and agreement sought. All relevant personnel agreed to take part in the case study.

Figure 2 provides an excerpt from a curriculum map showing the curriculum information for one unit. This template is used to collate the information for all units in the course.

Figure 2: Sample curriculum map

Year/ Sem	Unit No. Unit Title Credit Value	Syllabus	Unit Learning Outcomes	CLO Course Learning Outcomes	LOT Level of thinking	Assessments	%	Week Assessed	ULO Unit Learning Outcomes	Tuition Pattern
1/1	12345 Animal Science 100 25 Credits	The effect of nutrition, reproduction and lactation, health and genetics on the growth and development of farm animals. Exploration of related industries national and internationally. Introduction to research methods: inferential statistics and experimental design and analysis	1. Explain fundamental animal husbandry techniques	1	★	1. Case Study	10	Week 4	1	Lecture: 1x3 Hours Seminar: 1x2 Hours
						2. Tutorial Presentation – Individual	30	Week 6	1,2,4,5	
						3. Essay	30	Week 11	1,2,3,4,5	
						4. Exam	30	Week 16	1,3	
			2. Apply knowledge of animal science to problems in related industries both nationally and abroad	1,2,7	★★★					
3. Construct a sustained logical argument based on research evidence	2,3	★★★★★								
4. Propose viable solutions to basic problems in related industries	2,9	★★★★★								
5. Find and evaluate research evidence about animal science	2,3	★★★★★								

Unit learning outcomes (ULO's) begin with a strong action verb and describe an intellectually challenging, observable and measurable achievement. ULO's must be easily understood by students and clearly related to the CLO's.

This column indicates which Unit Learning Outcomes are being assessed.

The syllabus concisely outlines the unit's content and must be the same as the online handbook.

This is a star rating system based on Bloom's Taxonomy to demonstrate the level of thinking skills required to achieve the unit learning outcomes.

Each course has its own Course Learning Outcomes (CLO's) which link to the Curtin Graduate Attributes. This column links the unit learning outcomes to the discipline specific CLO's.

Unit learning outcomes are what students are expected to know, understand or be able to do in order to be successful in a unit.

The Comprehensive Course Review process had been completed and curriculum maps for both courses formally approved. The curriculum maps provided a readily available source of curriculum data for career practitioners to work with teaching staff to map the frequency and level of CDL in the curriculum.

Case Study 1

Course Profile

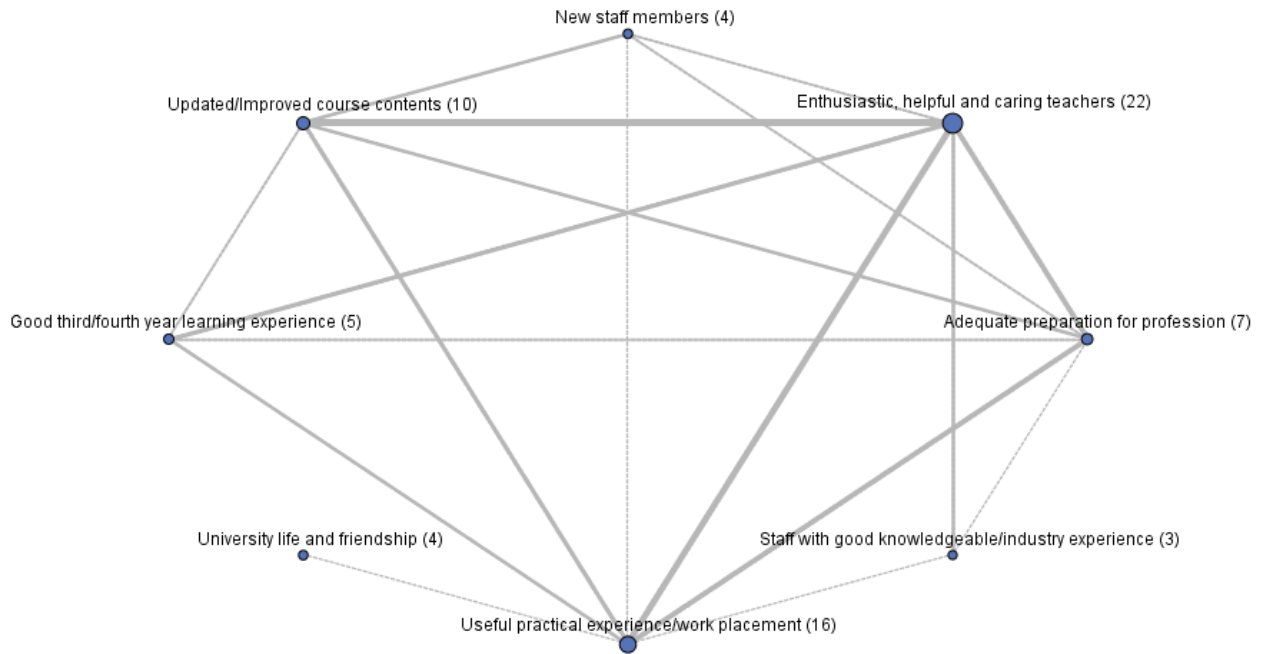
Case Study 1 was based on a large undergraduate specialist program. Table 1 shows the profile of the course. The data conveys the nature of the student cohort which typically studies this course. The course experiences high demand with an increase evident from 2009 to 2010. Approximately 41% of the total student count is international. While the average Tertiary Entrance Rank (TER) on entry has decreased marginally, it remains a competitive course requiring a high score to gain admission.

Table 1: Course profile course A

Case Study 1 - First Preferences	2009	2010 YTD
School Leavers	82	86
Non School Leavers	79	103
Total First Preferences	161	189
Case Study 1 - Average TER	2009	2010 YTD
School Leavers	93.1	91.0
Non School Leavers	93.8	91.6
All Students	93.5	91.3
Case Study 1 - Course Commencing Students	2009	2010 YTD
1-Domestic Cwth	90	101
4-IFP Onshore	50	49
Total Commencing Students	140	150
Case Study 1 - Course Total Students	2009	2010 YTD
1-Domestic Cwth	408	385
4-IFP Onshore	211	212
Total Students	619	597
Case Study 1 - Course Commencing EFTSL	2009	2010 YTD
1-Cwth Supported	76.2	94.5
3-Int Fee - Onshr	47.4	46.2
Total Commencing EFTSL	123.7	140.8
Case Study 1 - Course Total EFTSL	2009	2010 YTD
1-Cwth Supported	366.2	355.4
3-Int Fee - Onshr	198.4	200.3
Total EFTSL	564.6	555.8

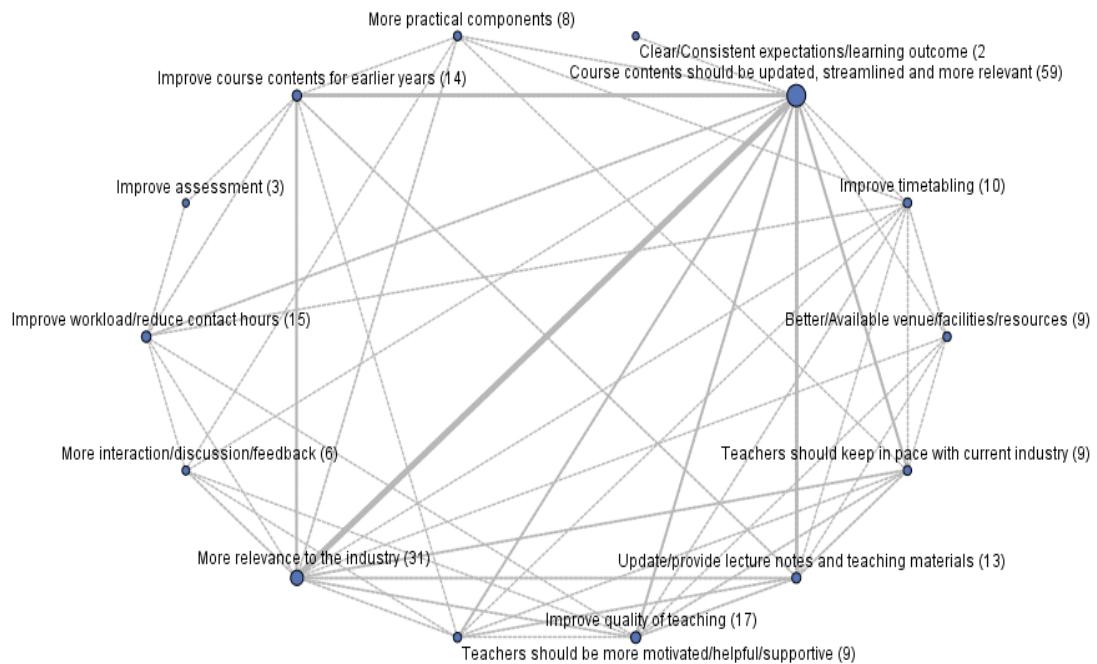
Prior to beginning the mapping of CDL in the curriculum, an analysis of Course Experience Questionnaire (CEQ) qualitative data was undertaken using CEQuery data analysis software. CEQ comments from 2007 and 2008 were collated and organised into subdomains. The visualisation in Figure 3 shows frequency of CEQ comments related to best aspects in each domain. The thicker lines and larger circles represent a higher occurrence of comments relating to that particular domain.

Figure 3: Visualisation best aspects CEQ comments course A



From Figure 3 it is evident that graduates are very complimentary about their teachers. There is also a clear emphasis on the value of practical experience or a work placement. Figure 4 below indicates frequency of domains which graduates believed required improvement.

Figure 4 Visualisation of needs improvement CEQ comments course B



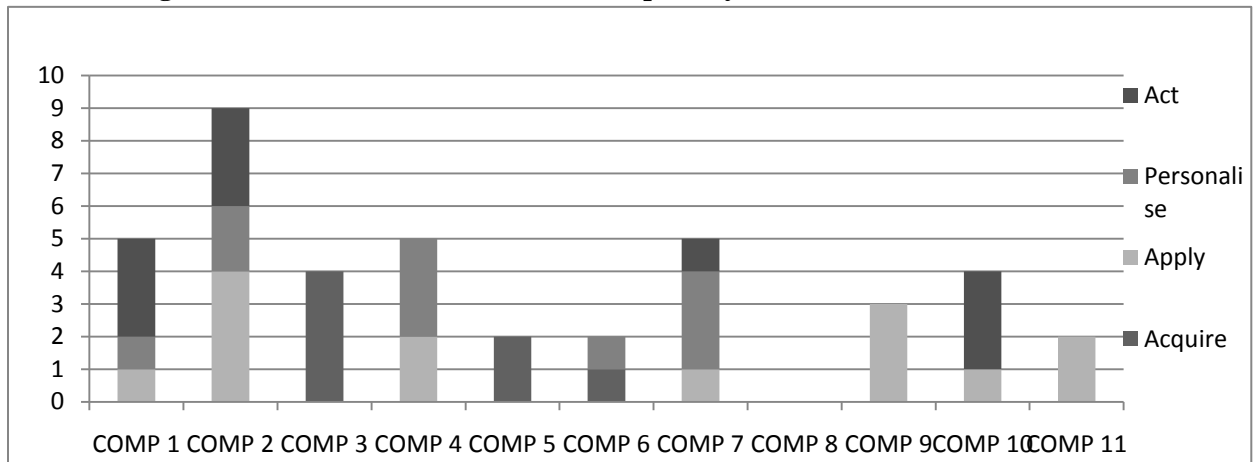
This data was used to ascertain that graduates perceived the course would be enhanced with a greater emphasis on career development and preparation for the work place.

Using the completed curriculum map, the syllabus and learning outcomes for each unit were analysed to identify key words and themes with links to the Blueprint competencies. These links were then scrutinised in detail to identify two facets of the Blueprint’s framework. The competencies addressed were recorded and categorised according to the four stage learning taxonomy. This analysis provided a benchmark of where and how career development was already embedded in the curriculum and an overview of the competencies that were not addressed or were addressed in limited capacity.

Through discussion with teaching staff, ideas were generated about where information, observations and activities relating to specific competencies could be further strengthened by aligning them to the learning outcomes and assessment. Linking the career development competencies to assessment demonstrates competence at the higher taxonomy levels of ‘personalise’ or ‘act’, rather than the more passive learning activities at the ‘acquire’ taxonomy level.

Once the curriculum mapping of the CDL competencies was complete, the data was entered onto the Excel curriculum map and visuals were created providing a graphical representation of where and how the competencies were addressed across the whole course (program). This is shown in Figure 5.

Figure 5 Number of times an ABCD competency is addressed in course A



The graph in Figure 5 shows that while most competencies were addressed, there is no evidence of competency 8. This graph illustrates the number of times a competency was addressed with the colour representing the developmental level of the competency. The graph shows an emphasis on competency 2 and while competency 3 has been addressed on 4 occasions, it is in the lower order of development being in the ‘acquire’ category. The colour breakdown suggests there is reasonable spread of the developmental phases of ‘acquire’, ‘apply’, ‘personalise’ and ‘act’.

Where, how and to what level CDL is addressed in the curriculum is dependent on the nature of the discipline. The visual representation of this data instigates robust conversation among teaching staff and often initiates innovative ideas for enhancing the curriculum and incorporating CDL in a meaningful and relevant manner.

Findings

Graduates reported the practical experiences in the course useful and acknowledged the importance of industry expertise and preparation through-out their educational experience. The key domain identified as needing improvement was related to more relevance to industry and career. The visualisation generated from the mapping exercise shows that competency 8 'Make career enhancing decisions' has not been addressed and competency 3 'Change and grow throughout life' has been addressed but only at the lower taxonomy level of 'acquire'. The graph illustrates that while there is a reasonable spread of the Blueprint competencies across the course, it seems there is an emphasis on the lower level skills. Teaching staff need to explore ways of addressing the competencies at a more complex level.

Case Study 2

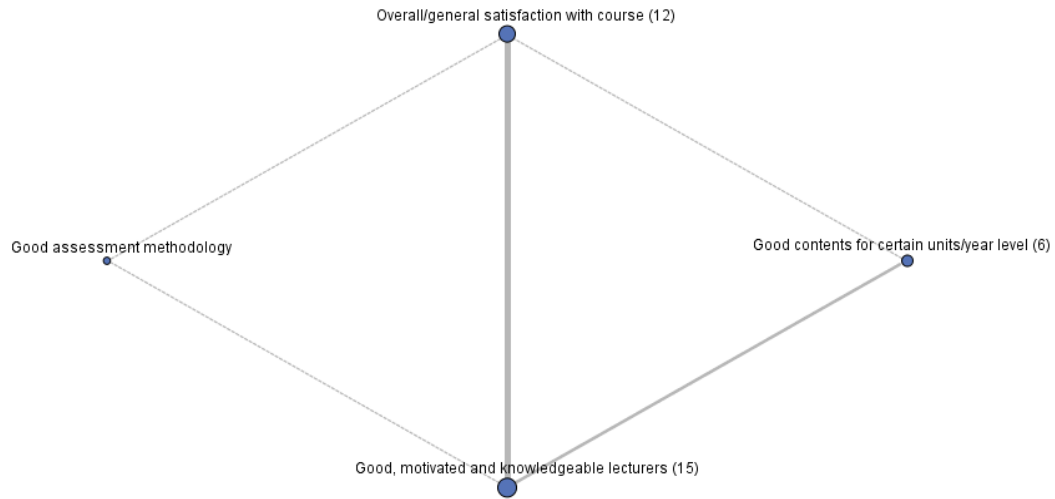
Course B is also a highly specialised professional undergraduate degree. The course profile in Table 2 shows the preferences, enrolment figures and TER scores over a 2 year period. Data indicates that demand for this course increased in 2010; however, enrolment of commencing students declined marginally. The average TER has remained steady and total course enrolments have grown.

Table 2: Course profile course B

Case Study 2 - First Preferences	2009	2010 YTD
School Leavers	83	115
Non School Leavers	79	120
Total First Preferences	162	235
Case Study 2 - Average TER	2009	2010 YTD
School Leavers	79.5	81.1
Non School Leavers	85.7	83.9
All Students	82.6	82.5
Case Study 2 - Course Commencing Students	2009	2010 YTD
1-Domestic Cwth	206	180
4-IFP Onshore	20	17
Total Commencing Students	226	197
Case Study 2 - Course Total Students	2009	2010 YTD
1-Domestic Cwth	514	547
2-Domestic Fee	0	0
4-IFP Onshore	48	46
Total Students	562	593
Case Study 2 - Course Commencing EFTSL	2009	2010 YTD
1-Cwth Supported	151.7	157.1
3-Int Fee - Onshr	15.4	15.6
Total Commencing EFTSL	167.1	172.8
Case Study 2 - Course Total EFTSL	2009	2010 YTD
1-Cwth Supported	387.7	443.6
2-Domestic Full Fee	0.9	0.5
3-Int Fee - Onshr	40.4	36.3
Total EFTSL	428.9	480.4

Prior to mapping CDL in the curriculum, an analysis of Course Experience Questionnaire (CEQ) qualitative data was undertaken using the CEQuery data analysis software. CEQ best aspects and needs improvement comments from 2007 and 2008 were collated and organised into subdomains. Figure 6 shows the visualisation of this data for best aspects and Figure 7 presents the analysis for needs improvement.

Figure 6: Visualisation best aspects CEQ comments course B



Despite the small number of comments relating to best aspects, the analysis in Figure 6 illustrates that the comments concentrated in 4 key domains. Students felt their learning experience was greatly enhanced by the good, enthusiastic and helpful staff members. Students also voiced their overall satisfaction with the course.

Figure 7 shows students' comments relating to areas needing improvement of Course B centred mainly on the need to have more practical components, specifically the need for more work experience/placement. There was also varied feedback on the improvement of course content.

Figure 7 Visualisation of needs improvement CEQ comments course B

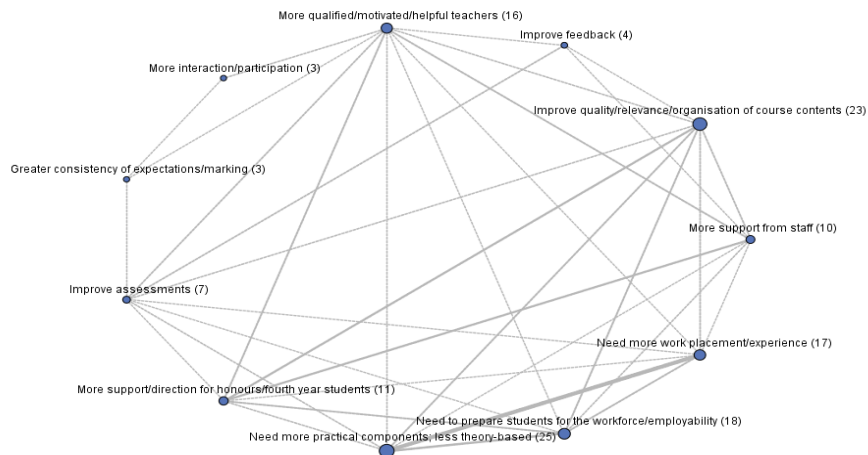


Figure 8 Number of times an ABCD competency is addressed in course B

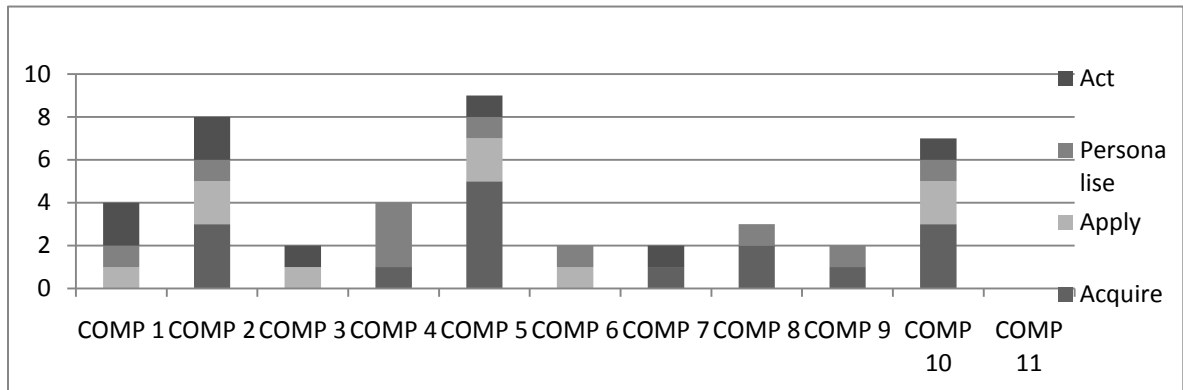


Figure 7 illustrates the number of times a competency was addressed with the colour representing the development level of the competency. The graph in Figure 8 demonstrates that all but competency 11 is addressed.

Findings

Graduates identified the need for more practical components to be built into the course. This domain showed strong links to the issue of course relevance. As evident from Figure 8, across the curriculum of the course, there was an emphasis on competency 2, 5 and 10. Each of these competencies belongs to a different area of the Blueprint: ‘Personal Management, ‘Learning and Work Exploration’ and ‘Career Building’. This spread is positive but perhaps greater prominence needs to be given to incorporating the higher taxonomy levels of ‘apply’ and ‘act’. Competency 11, ‘Understand, engage in and manage the career building process’ appears to be absent from the curriculum.

Engaging Staff

Through participation in the curriculum mapping exercise and interacting with the visual representations of the data, teaching staff tended to be more engaged with the process and keen to contribute in a constructive and meaningful way. This process was multi-purpose in its intention: it allowed for the Careers Centre to gain a deeper understanding of the learning outcomes, unit content and delivery methodologies; it provided the opportunity for the Careers Centre to explain possible ideas for addressing the gaps and suggest ways to strengthen the curriculum; it provided meaning and relevant professional development for teaching staff; it assisted in relationship building between the Careers Centre and Faculty staff ; and it nurtured a greater understanding of the role of the Careers Centre and how they support teaching areas. Building of these relationships are paramount in the effectiveness of delivery of careers in the curriculum and creating further opportunities for collaborative teaching and learning with the ultimate aim of enhancing the student experience.

Future Developments

To ensure these tools and learning practices remain relevant and pedagogically sound, it is imperative to incorporate further research and benchmarking activities. Applying what has been learnt through conducting the two case studies, mapping CDL in the curriculum will be integrated into the Comprehensive Course Review process across the Institution. Incorporating CDL into assessment will be a focus as part of the university's systemic approach to improving assessment practices. The inclusion of Curtin's iPortfolio as a mechanism for assessing CDL will be explored. Furthermore, an ALTC Fellowship is currently underway: *Benchmarking Partnerships for Graduate Employability* (see <http://web.me.com/beverleyoliver1/benchmarking/About.html>). The curriculum map and the evidence based practices it enables are being promoted globally with an intention to benchmark.

Conclusion

The success of this initiative is reliant on established working relationships, familiarity with the curriculum review process and an understanding of curriculum design protocols. While the process itself is a form of professional development, a willingness to participate and recognition of the importance of CDL is imperative. It is essential for leaders of the teaching area such as Heads of School and Deans Teaching and Learning to act as champions and assist in driving the engagement of staff. The process of mapping CDL in the curriculum serves multiple purposes. It provides visual evidence of strategically important elements of the curriculum and a means of relaying accountability to accrediting bodies, government agencies and other auditing organisations.

Curriculum development in careers education is a major priority (Watts, 1996) to ensure graduates are well positioned to manage challenging and demanding careers in a rapidly changing and global world. Career centres are poised to make a stronger contribution to the graduate employability agenda (DEEWR, 2008). Through engaging in curriculum development activities and working directly with teaching staff, Careers at Curtin are on the cusp of making a significant impact in this arena.

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Appendix 1 - THE FRAMEWORK: The Competencies - 4 Phases

Competencies	Phase I	Phase II	Phase III	Phase IV
Area A: Personal Management				
1 Build and maintain a positive self concept	1.1 Build a positive self concept while discovering its influence on yourself and others	1.2 Build a positive self concept and understand its influence on life and work	1.3 Develop abilities to maintain a positive self concept	1.4 Improve abilities to maintain a positive self concept
2 Interact positively and effectively with others	2.1 Develop abilities for building positive relationships in life	2.2 Develop additional abilities for building positive relationships in life	2.3 Develop abilities for building positive relationships in life and work	2.4 Improve abilities for building positive relationships in life and work
3 Change and grow Throughout life	3.1 Discover that change and growth are part of life	3.2 Learn to respond to change and growth	3.3 Learn to respond to change that affects your well-being	3.4 Develop strategies for responding positively to life and work changes
Area B: Learning and Work Exploration				
4 Participate in lifelong learning supportive of career goals	4.1 Discover lifelong learning and its contribution to life and work	4.2 Link life-long learning to personal career aspirations	4.3 Link lifelong learning to the career building process	4.4 Participate in continuous learning supportive of career goals
5 Locate and effectively use career information	5.1 Understand the nature of career information	5.2 Locate and use career information	5.3 Locate and evaluate a range of career information sources	5.4 Use career information effectively in the management of your career
6 Understand the relationship between work, society and the economy	6.1 Discover how work contributes to individuals' lives	6.2 Understand how work contributes to the community	6.3 Understand how societal needs and economic conditions influence the nature and structure of work	6.4 Incorporate your understanding of changing economic, social and employment conditions into your career planning

Area C: Career Building

- | | | | | | |
|----|--|---|--|---|--|
| 7 | Secure / create and maintain work | 7.1 Explore effective ways of working | 7.2 Develop qualities to seek and obtain/create work | 7.3 Develop abilities to seek, obtain/create and maintain work | 7.4 Improve on abilities to seek, obtain/create and maintain work |
| 8 | Make career enhancing decisions | 8.1 Explore and improve decision-making | 8.2 Link decision-making to career building | 8.3 Engage in career decision-making | 8.4 Incorporate realism into your career decision-making |
| 9 | Maintain balanced life and work roles | 9.1 Explore and understand the interrelationship of life roles | 9.2 Explore and understand the interrelationship between life and work roles | 9.3 Link lifestyles and life stages to career building | 9.4 Incorporate life/work balance into the career building process |
| 10 | Understand the changing nature of life and work roles | 10.1 Discover the nature of gendered life and work roles | 10.2 Explore non-traditional life and work options | 10.3 Understand and learn to overcome stereotypes in your career building | 10.4 Seek to eliminate gender bias and stereotypes in your career building |
| 11 | Understand, engage in and manage the career building process | 11.1 Explore the underlying concepts of the career building process | 11.2 Understand and experience the career building process | 11.3 Take charge of your career building process | 11.4 Manage your career building process |

Reflecting, Blogging and Learning in Journalism: Are Journalists Born or Made?

AMY FORBES

James Cook University

This paper describes an innovative practice in journalism education and training at James Cook University following the overhaul of its journalism program in 2009 under the Curriculum Refresh initiative. It has long been a challenge to both the student and the journalism educator when confronted with statements such as “I know what to do without thinking” or “know a good story when they see one” (Burns, 2005). Utilising a qualitative case study, it shows how integrating two learning tools – reflective practice and blogging – within the internship program serve to enhance the learning and sharing experience of journalism students. Blogging provides the opportunity to engage in more writing practice. Reflection enables students to become aware of how they learn and become socialised into the profession. Students report that confronting the contradictions between what they are expected to do and what they ultimately do made them more self-aware and confident in transforming themselves into competent and employable journalists for the 21st century newsroom.

Keyword: Journalism curriculum, Blogging, Reflective practice, Internship, Cooperative education

Introduction

A myth exists in the journalism profession that journalists are born, and not made. One of the earliest supporters of this myth was H.A. Gwynn, president of the British Institute of Journalists 1929-1930 who wrote: “Journalists of all schools of thought hold the theory that, like a poet, a journalist is born, not made.” (Carr & Stevens, 1931, as cited in Oakham, 2006). This belief, if unchallenged, poses seemingly insurmountable difficulties for the veteran journalist and trainer whose task it is to mould aspiring writers into their image.

In response, ‘learning by doing’ has long been the steady mantra embraced by journalists and trainers keen on transforming aspiring writers into clones of themselves. As Ericson *et al.* (1987, as cited in Oakham, 2006) argue, “Learning the (journalist) craft does not involve consultation of such authoritative texts. It comes from consulting news texts, being scrutinized by editors, talking to more experienced colleagues, and doing the work.”

As such, the cadetship (also called internship or placement) program in journalism has been a capstone subject that is as much practice based learning, as it is possibly the student’s first foray into the real world of the journalism profession. In recent years with the renewed attention afforded Work Integrated Learning (WIL), it would be safe to say that journalism has always considered cooperative education as essential in producing competent graduates. Combining personal experience with academic study and reflection facilitates the transformation of knowledge into competency (Canale, & Duwart, 1999).

Reflective Practice and Blogging

Critical reflective practice is used in WIL and cooperative education to encourage students to consciously think about and analyse their experiences at the workplace and to reflect on them in order to gain the maximum benefit from their work placement and co-op experience. It provides

them with greater self-awareness of their competency that is useful when they promote themselves to prospective employers (Coll, Lay, & Zegwaard, 2001).

Reflective writing has traditionally been described as the expression on paper of reflective thinking. It is considered a key skill in the workplace as 'only through contemplating what one is doing and why can one demonstrate that intelligent and competent practice ensues' (Thorpe, 2004). It is also described as a process of thinking back on what has been experienced, reflecting on them, and making sense of them. A key feature of reflection is that it occurs over time. During this time, the learner This practice allows learners to question assumptions, critically question practices, and change future practice.

In the journalism profession, this activity is lacking. Hard-bitten journalists plead deadline pressures and budget constraints that preclude any downtime to engage in what many consider as mere 'navel gazing.' Few take the time to consider their role in stimulating discussion in society and of animating democracy.

Similarly, journalists have been slow in embracing the overwhelming shift in information creation and dissemination from the 'mass' to the more individual-centric new media of today's technological society.

Today's information society is steadily being characterised by a shift in the balance of power from traditional purveyors of information (old media) to the myriad 'internet voices' of smaller but no less powerful 'citizen journalists' who are able to comment on anything and everything. Content creation has shifted to individual publishers largely through the power of the web. For journalists, the web has become an increasingly popular news source as well as an efficient way of organizing materials such as when journalists provide links to other web sources in their stories. However, debates have arisen surrounding the issue of whether web-based journalists need to have a physical 'beat' to be considered legitimate (Cunningham, 2001). Likewise, the division between professional and personal practice remains a concern for the media organization which views blogging as direct competition, or potentially blurring the line between objective reporting and what could (and should) be considered the journalist's opinion.

The practice of blogging traces its beginnings to as early as 1994 but weblogs, or blogs were few and cumbersome to update due to the technology then available (Pavlik, & McIntosh, 2010). Blogs, in their simplest form, are web pages of short, frequently updated postings by an individual, arranged chronologically, and may contain thoughts, links to sites of interest, rants, and anything else the blogger wants to write about. By 1999, blogging became more popular and easy to do with the availability of easy-to-use software as well as sites such as Blogger.com that was bought by Google in 2003 (Pavlik, & McIntosh, 2010). Many blogs served a similar purpose as mainstream media in that the more popular among them served to set the news agenda of the day. In news organizations, however, the uptake was less swift. In fact, in 2002, Steve Olafson, a journalist at the Houston Chronicle became the first professional journalist sacked for running a blog (Orlowski, 2002). Olafson had criticised local politicians in his blog and his editor considered his action a breach of ethics and a form of "gonzo journalism" (Orlowski). Steadily, weblogs gained the attention of the mainstream media and many news organizations encourage their reporters to blog (Mead, 2000; Weber, 2000). They are quick to caution them, however, that their blogs should not undermine the journalist's, and more importantly, the organization's own credibility as a source for important news. This is important as the very nature of blogs dictate that they are raw, honest and unfiltered 'exchanges' with other members of, as opposed to the well-controlled messages published by news organizations.

Methodology

Utilising a qualitative case study, this paper shows how integrating two learning tools (reflective practice and blogging) within the internship program serve to enhance the learning and sharing experience of students. Qualitative case study also allows for the understanding of a bounded phenomenon by examining in depth, and in a holistic manner, one or more particular instances of the phenomenon (Yin, R., 2003).

Ethics approval was sought from the university for this research. From the point of view of data collection, it should be noted that the students' blog sites are in the public domain and therefore, accessible to anyone.

There were 19 participants who were enrolled in the internship subject. The subject was delivered over 13 weeks.

Data were collected from the interns' published blog sites that formed part of their assessment task during internship. Data were analysed guided by Jean Lave and Etienne Wenger's pedagogical strategy of situated learning where learning is viewed not simply as the transmission of abstract and decontextualised knowledge from one individual to another, but a social process whereby knowledge is co-constructed (Learning Theories Knowledge base, 2010). They suggest that such learning is situated in a specific context and embedded within a particular social and physical environment. As a data analysis tool, situated learning provides four distinct stages, which are useful in looking at knowledge transfer, adaptation and learning:

- access to new skills and knowledge
- internalisation of skills and knowledge
- validation and integration against existing skills and knowledge
- application in a new context (Down, 2002)

Further insights were obtained from classroom discussions with the students as they discussed their blogs and the learning they perceived to have occurred during their placement.

Discussion

In 2009, James Cook University embarked on an overhaul of its journalism curriculum. The new Bachelor of Multimedia journalism is WIL-centered and aims to provide the student with the ability to build competencies that are based not solely on technical mastery but support lifelong learning. Emphasis is on creating competent and employable journalists for the 21st century newsroom.

As part of the curriculum, the internship subject is designed to enable students to develop and demonstrate journalism graduate attributes whilst on placement. The subject is core to the degree and placements are carefully matched to the expectations of both the student and the internship.

As part of innovative practice, maintaining a blog site of the students' experiences and reflection while at the placement was made an assessable requirement for the subject. Students were directed to the Blogger website and provided easy step-by-step instructions on how to set up their individual blog sites. It is worth noting that despite the widespread perception that today's students are all

Web 2.0 savvy, only one student in this class of 15 had ever set up or maintained a blog site previously.

While some students expressed initial apprehension in mastering an unfamiliar system, all were able to master the blog setup. Students reported Blogger.com presented a low level of barrier to entry. The instructions provided were simple and each student was able to set up his/her blog site before commencing placement.

Students were encouraged to blog regularly while at the placement. This could be daily, or at a minimum, once a week. Each student's URL or site address was shared with the rest of the class. While students were aware of their peers' blogs, they were under no obligation to read them.

At the same time, discussion of reflective practice was undertaken in class. Along the course of the semester, the teacher posted comments and guideposts that served to assist the student in focussing on reflection rather than just chronicling a narrative of experience. Some narrated experiences were singled out and discussed during the face-to-face meetings as a class and students were asked to revisit entries. During these sessions, students were provided guided reflective writing questions adapted from Moon's (2001) Reflective Writing Guidance Notes for Students. Ultimately, many in the class took to reading each other's posts and providing their own comments whether in their peer's site, or their own.

The following reflections are evidence of learning that took place. Students ceased to become passive participants but became critical agents in the learning process, both in the active selection of their learning experiences and also in their engagement with the new media of blogging. All names used are pseudonyms.

Writing skills development

Heather began her blog by outlining what activities she had engaged in, in her placement. She reported delight in the variety of tasks she was assigned to do, particularly as her placement was in the new online environment.

When (the editor) edits my stories as I watch on, it is not only helping me learn how to improve my writing style, it also teaches me some good sub-editing skills. Bonus !

Charles wrote :

I can now write a story, once I've done interviews and research, in anywhere between 15 to 45 minutes, depending on the subject and length. This is a marked improvement upon my ability over the last 2 years. When I was doing JN assignments it used to be the work of around 3 or 4 hours to write a story. But pressure makes me work harder, and deadlines help me hone my story writing and information assimilation skills.

Mary learned a valuable lesson in media release writing :

After writing up the release I passed it on to (my supervisor) to read over, before I passed it on to the media. I learned an interesting lesson from this. NEVER SAY TOO MUCH (emphasis in the original). To attract them (media) to the cheque handover, I needed to say as little as

possible, and leave them with questions they NEEDED answered. I had never thought of it like that, but, it made perfect sense.

Confidence boost

All of the students reported feeling intimidated at the start of their placement. However, after a couple of weeks, all reported feeling increased confidence in their ability to get the job done:

I was on my own yesterday but that didn't stop me from getting a much needed interview for the story. I picked up the phone and dialled. I've come to realise that people on the phone are really nice, polite and willing to help.

I felt really in control of what we were doing... Experiences like these are allowing me to see my progress and skills development. I can feel the difference in my ability to communicate with new people, especially in situations where the information is only relatively new to me.

...regardless of who I'm interviewing, when I am asking the questions, I have the power. This has been both an important and powerful realisation for me, and one that I've been putting to use in all my interviews.

Reflection on sources of news

One of the activities a good journalist ought to do regularly is to check on his or her sources of information. In many cases, journalists fail to question their usual research sources, or to question the choice of people they interview for a story. This needs to be challenged as sources of information have become varied and there is need for more journalistic transparency. Transparency “signals a respect for the audience and reaffirms a journalist’s public interest motive, the key to gaining credibility” (Diakopoulos, 2008). Blogging provides a relatively safe environment in which mistakes and ethical decisions are reflected upon.

They gave cutish quotes which is what people expect from 10 year olds. There's no point asking really detailed questions from little kids, especially in the excitement of a parade when they are getting out of class, so I did the easy thing and asked the easiest questions I could.

[I had to] find some people who were going to the festival. This was easy, as all of my friends (and myself were going). I know it may not be ethical, but I interviewed my friends and organised them for a photo with ease.

Communicating with them allowed me to update the 'writer's information' database with their interests, preferences for assignments, hobbies and how the magazine could help them. Having this knowledge will help when it comes to allocating interviews and assignments.

Situated learning

Evidence of situated learning is evident in all of the students' blogs. Students report being able to make the connection with what was taught in class to what they actually experienced in the field.

I remember [the teacher] saying once how you can have everything ready and then suddenly something would happen and you would have to drop everything and go to the other story. I got to experience this first hand today, which was quite exciting.

If you don't need it, cut it out.' ...there are images being played as the story is read, therefore not every detail needs to be spoken. It has taken me a while to pick up on this after being drilled at uni for the past three years about the importance of the 5 W's and 'H'.

This made me wonder how the [newspaper] could get it so wrong... In our journalism classes we are constantly being told to check and double check information. In nearly every lecture we are reminded of the legal implications of printing information that is not correct.

In some cases, students were rudely awakened to the reality of what they had only been warned about at university.

I was asked to write this release I had NO idea it was in the job description of a PR to make up quotes... I was mortified when I was told to just "write what you think Cr Marr would say." It went against everything I learnt about journalism.

Reflecting on blogging

In general, students reported they liked doing the blogging activity. It gave them a distinct voice and allowed them to keep a sequence of commentary and links using simple software. The blogs and consequent interaction among students also assisted in building a community of practice collaboratively. The ability to discuss and interact with peers undergoing a similar experience, addressed the oft reported problem of isolation during placement (Paku, & Lay, 2008; Wolf, 2008).

I have read other students' blogs and seen that I am not the only one experiencing the frustration of not hearing back from sources.

I do also enjoy reading blogs and being able to post my opinions and thoughts for others to read without having to go through the trouble of getting it printed.

The writing of the blog is more a reflection of self than a writing exercise. I find that when I start the blog, I hit a flow and think less about the form of my prose. Therefore the blog is more about how I feel rather than honing my skills.

I really enjoy reading blogs about all different areas, including craft, fashion, travel and magazines. Blogs let people be creative in their own way, so I'd love to have my own "famous" blog one day.

Reflecting on Reflective Practice

The process of reflecting was new to all the students. The teacher spent face-to-face meetings to talk about what it is and its aims. Several actual examples of students' reflections were shared with the students along with a discussion of how such reflection provides added learning to the student. Along the course of the subject, the teacher also posted comments and questions, asking students to

explore their reflections further in areas they may not have been aware of at the time of posting. This guidance served to enrich the reflecting process. Expectedly, the levels of reflection varied widely among all students. Some expressed apprehension about not knowing enough about reflecting but showed they did understand the concept.

I don't know enough about how I should be reflecting. Reflection to me is about looking back at what you've learnt throughout a day. It's about deciding whether, if you had your time over, you would do something differently. Reflection's also about learning what not to do/can improve on in the future.

This blog has had a somewhat cathartic role. It has given me both time and opportunity to consider the experiences I've had in my role as an intern. I think it's beneficial to have it as a weekly task, because it allows me to examine my performance critically, and educates me on how to improve my performance. I encourage the process of blogging, and will continue to do it in all likelihood...

Conclusion

The results of this study provide support for the continued use of blogs and reflective practice as part of the internship subject in journalism. Some students lacked the reflective skills to fully benefit from the empowerment and deep learning that the practice provides. Admittedly, commenting and guiding students over the course of the subject also required more work and time on the part of the teacher. There is also the question of how much involvement or intervention a teacher should undertake and still, as Wolf (2008) put it, maintain the "purity of the blogging experience." For larger class sizes, group blogging may be explored as an alternative discussion space.

Blogs are useful reflective tools and they open up discussions on other areas such as the relationship between private and public spheres, especially in terms of professional practice. Here, the teacher must provide the context of the activity and make students aware of the implications of having a public site. Rules of Netiquette have to be made clear as students navigate these new and often treacherous technologies.

Reflective writing is good practice regardless of whether it is undertaken in the traditional pen-to-paper mode, or, as in the case of this study, online and in the public sphere. Blogging poses challenges as far as what can and should be written and shared online while operating within the bounds of ethical and legal limits. It may be said that for the 21st century journalist who now must operate in a sphere made even more public by online technology, the practice of blogging serves as good training not just in strengthening the discipline of having to write regularly to keep the blog site current, but also to write professionally and responsibly at all times.

There were students whose reflections were quite insightful and showed deep learning and socialization into the journalistic profession. While the internship experience seems to support the myth of "predisposition" or of one being "born with it," many trainers and supervisors spend much time training the student in the "craft" of journalism, stressing the most important "nuts and bolts" of the profession – accuracy, good writing skills and how to validate information.

These few lessons have really helped me throughout my internship and have formed a basis for my future work ethics. I now understand why these internships are so important as a valuable

resource for life lessons in our chosen careers no matter where you do yours, whether it be at a small Government organisation, a large news corporation or a PR firm.

Journalism is quite a hierarchical society, with a well ordered and firm structure. I also observed some key character traits amongst the journos in the office:

- They are quite personable, and friendly, but with a reservation that doesn't give too much away about themselves.
- They are dedicated, and somewhat reminiscent to a bloodhound on the scent. They follow a trail, and can be seen to bray happily when they sight their quarry.
- Often ask incisive questions, and just ask questions in general.
- They are willing to sacrifice a lot of time and energy in the pursuit of their stories.
- They are often cynical.

I wonder if this is me in a few years, and I guess time will tell.

These students possess a unique personal insight into the profession they are planning to enter and they are not far off the mark. Journalism is a hierarchical system where “being a journalist” is passed on orally from the senior to more junior journalist. For a profession that boasts of members having “it” – call it “sparkle,” “a hunger,” “a natural flair” or simply “passion”, and distinguishing between what can and cannot be taught, much energy is expended by its members to teach the younger generation in a formal, didactic, skills or craft-based method. The practice of reflection on the part of the students adds a dimension of development beyond mere transfer of skills. Walker (1985 as cited in Bartlett-Bragg, 2003) believes that “creative interaction with one’s own development helps to ensure that new knowledge is incorporated in, and integrated with existing knowledge.” The use of blogs and the practice of reflection afford the student with this creative interaction that hopefully will translate into more than just ‘learning by doing’ but to an innovative and creative transformation of both the new journalist and the development of “new” journalism education in the 21st century.

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Not so 'Generic': The development of business students' generic skills through work integrated learning

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In recent years higher education stakeholders have expressed growing concern about teaching and learning performance and outcomes (Yap, 1997; Albrecht and Sack, 2000). One technique that can assist in improving students' development of professional skills and understanding is work integrated learning (WIL). WIL presents a challenge both in its formation and implementation for an Australian higher education system characterised by limited resources, large and diverse student cohorts and the ever present 'publish or perish' paradigm that draws lecturers' attention away from teaching and learning activities.

The emerging gap between graduate attributes and what industry requires not only refers to the lack of 'employment readiness' of students, but also their generic skills. The 2002 ACCI / BCA project, *Employability Skills for the Future* (DEST Report) identified eight employability skills argued to be important for students to develop: communication, teamwork, problem-solving, initiative and enterprise, planning and organising, self-management, learning and technology (ACCI/BCA, 2002, p 7).

To address this concern a Professional Development Program (the 'PD Program') was developed. The PD Program is integrated into a business degree program and is designed to systematically develop students' learning, employment and generic skills and supplements their theoretical studies. This paper details the procedures that have been developed, and provides preliminary evidence on the impact of the first part of the PD Program on students' generic skill development over 12 months. It will be argued that those students involved in the PD Program demonstrate significant gains in both their generic skills and associated recognition of the importance of generic skills development to their studies and professional lives compared to students who did not participate in the PD Program. These results highlight the potential gain for universities by investing the necessary resources to develop WIL opportunities for their students to assist in the development of generic skills.

Keywords: Work Integrated Learning, Generic Skills, Professional Development, Graduate Attributes.

Introduction

Universities are becoming more conscious of the need to develop not only the key technical skills of their students, but also to develop students' generic skills¹ (Australian Education Council, 1992; AC Nielson, 2000; ACCI & BCA, 2002; Precision Consultancy, 2007). Despite this increased awareness, various surveys have identified underlying concerns of industry with students' generic skills (AC Nielson, 2000; Kavanagh & Drennan, 2008). This raises the issue of how universities can provide their students with opportunities to develop their generic skills.

To address this critical issue, an integrated continuous orientation program, known as the professional development program (the PD Program), was created to develop student attributes. To increase the potential influence of the PD Program, industry is heavily engaged and involved with

¹ Also referred to as 'graduate attributes', 'graduate skills' or 'employability skills'.

its delivery. In this way, the PD Program provides a continuous orientation program with work-integrated learning (WIL) components.

This paper offers preliminary analysis of the PD Program relying on self-reported measures of student development in terms of generic skills of two cohorts of business students over a 12 month period. The remainder of this paper examines the importance of generic skill development and the potential WIL has in its development. The design of the PD Program as well as the research method is then discussed. This is followed by a discussion of the results. The final sections then consider limitations and the potential for further research, before concluding.

Theoretical background

With the development of the PD Program – there was a focus on generic skills as well as what role WIL can play in student learning.

Generic skills

There are a number of terms that have been used to describe generic skills, such as graduate attributes, graduate skills or employability skills. In essence, these describe a set of skills that have potential broad application to a range of disciplines or circumstances. For example, a student's technical knowledge of Australian tax legislation is discipline-specific, whereas the student's ability to research Australian tax legislation to identify a particular law represents information literacy – a generic skill.

There are a number of generic skills that have been articulated. For example, the 1992 ACCI/BCA project, *Employability Skills for the Future* (DEST Report) identified eight employability skills: communication, teamwork, problem-solving, initiative and enterprise, planning and organising, self-management, learning and technology (ACCI/BCA, 2002, p 7). Employers have emphasised problem solving, communication and team work skills in qualitative research (Harvey et al., 1997; Kavanagh and Drennan, 2008; ACNielsen, 2000). In fact, higher education institutions are developing their own set of graduate attributes, drawing on generic skills research such as the DEST report, to develop WIL curriculum (Litchfield et al., 2008, p 334).

There is debate about the balance and mix of generic, technical and professional skills that should be built into degree programs (Asbaugh and Johnstone, 2000; Crebert, 2002; Kavanagh and Drennan, 2008). While such debate is beyond the scope of this study, what is clear is that there is little evidence based research which isolates the comparative effectiveness of different strategies in terms of developing students' generic skills (Precision Consultancy, 2007, p 1).

The implementation of generic skills in the higher education curriculum is critical for a number of reasons. Firstly, students with generic skills have better graduate employment prospects. Numerous reports recognise the employer demand for graduates with generic skills and conversely that a strong disciplinary knowledge does not of itself guarantee graduate employment (Crebert et al., 2004, p 148). For example, research in the United Kingdom found that a graduate's success at work was perceived to be more influenced by the graduate's generic skills rather than their specific degree (Harvey, 1999). Secondly, generic skills possess the attribute of transferability. Whilst discipline-based knowledge becomes dated and is not necessarily transferable across different jobs, generic skills rarely become obsolete and can be transferred into new career paths (Kavanagh and

Drennan, 2008; p 281). The transferability of generic skills is also a graduate perception in the context of WIL. WIL can assist in transferability as Crebert et al. found that 72.6% of graduates surveyed from three tertiary schools who had completed work placements had not encountered major difficulties in applying their generic skills in the workplace (Crebert et al., 2004, p 156). Finally, professional bodies such as the Institute of Chartered Accountants in Australia and CPA Australia have established accreditation criteria which explicitly requires universities to include generic skills development in their programs (Birkett, 1993; ICAA and CPA, 2009). In fact, the Financial Planning Association of Australia has emphasised the importance of WIL methods in developing these generic skills (FPA, 2009).

However, research has questioned the tertiary response to development of students' generic skills. In the context of accounting education, a survey of 92 employers by Daggett and Liu found that accounting graduates' skills in writing, presenting and interaction were lacking (Daggett & Liu, 1997). Kavanagh and Drennan's study of accounting student and employer perceptions concluded that both employers and students believe that tertiary programs in accounting are failing to sufficiently develop the non-technical and professional skills of students. Industry reports into Higher Education have reiterated a similar theme, including Business/Higher Education Round Table, 1991, 1992, 1993; Association of Graduate Recruiters, 1993, 1995; Sausman & Steel, 1997; Coopers & Lybrand, 1998; AC Nielsen Research Services, 2000. For the purposes of this paper the generic skills focused on are detailed in Table 1

Table 1: Generic Skill Numbers

Skill Number	Generic Skill
1	interpersonal
2	self management
3	learning and adaptability
4	problem solving
5	concept and analysis
6	oral communication
7	team
8	information literacy
9	written communication
10	career & vocational

WIL

WIL can equip students with the necessary generic skills by offering a 'rich, active and contextualised learning experience' (McLennan, 2008, p 4). WIL2 programmes are typically described as "educational programs which combine and integrate learning and its workplace application, regardless of whether this integration occurs in industry or whether it is real or simulated" (Atchison et al., 2002, p. 3).³ WIL programmes are receiving increased attention in Australia with universities encouraged to implement them (Jancauskas et al., 1999; Precision Consultancy, 2007). One of the reasons for this greater attention is that "WIL has provided universities with an opportunity to offer a better product that students will appreciate as a pay-off for their investment" (Abeysekera, 2006, p 7). Research on WIL programmes has demonstrated increases in student job knowledge and skills, improved attitudes and behaviours towards work

² There are a number of terminologies used to describe WIL, including cooperative learning and service learning; however the term WIL is used in this paper for consistency.

³ There are a number of possible models for a WIL programme, such as Mentored Employment, University/Industry Research; Supervised Work Experience, Customised Accredited Workplace Learning, Enterprise Development and Entrepreneurial Programs, and Simulations (Atchison et al., 2002).

readiness (Hughes and Moore, 1999), substantial personal development by students (Day et al., 1982), positive effects on students' learning, including identifying the relevance of theoretical concepts taught in class, putting theory into practice, appreciation that academic success is not the only attribute for career success, and the development of communicative abilities. With the capacity of WIL to address concerns regarding generic skills in mind, the PD Program was developed and implemented.

Design of the PD Program

The PD Program is integrated into a business degree. Students can complete majors in Accounting and Financial Planning. The PD Program is designed to systematically develop students' learning, employment and generic skills while providing students with industry knowledge and exposure to industry. This systematic development has been described as a 'full service model' in the WIL literature (Atchison et al., 2002, at p 3). As a full service model, the PD Program scaffolds generic skills development, industry awareness and exposure in each trimester in each year of the degree and tailors the program to the unique student life cycle of the business degree.

The PD Program is delivered in the days prior to the start of each trimester (known respectively as PD#1, PD#2 and PD#3), in each of the students three years of study. A critical element to the success of the PD Program is industry participation in the design and delivery of certain sessions within the PD Program, thereby giving the PD Program WIL characteristics. Industry representatives include practitioners, human resources staff, recent graduates and the professional bodies. From a student perspective, industry led-sessions conferred greater authenticity about the importance of generic skills.

University staff (academic and non-academic) and external consultants conduct the remaining PD sessions. Whilst some components of the PD Program are currently delivered elsewhere in the university, they are generally stand-alone rather than being integrated and timed so students may not appreciate their significance. Further, these centralised services can be generic rather than contextualised to students' actual degree. It is argued that the PD Program's incorporation of these existing services in an integrated and considered way will improve outcomes and contextualise them for students.

This paper addresses the activities undertaken by 1st year students as part of the PD Program. Below is a detailed description of the PD Program for 1st year students and how the activities correspond to the generic skills listed in Table 1 above.

#1: First PD Days: Jan/Feb

The first PD Days are held at the end of January for three days in the week prior to the start of the first trimester (PD#1). For 1st year commencing students the first PD Days were very much an integrated orientation program, but with additional attributes of forming relationships with other new and established students (through Pod activities) and initial networking with industry. These workshops addressed many of the generic skills required by students. Some of the more 'traditional' activities included timetabling, getting on-line, library database (Skill #8), academic planning (Skill #2) and counselling services (Skill #3). Also, learning services advisors conducted sessions on time management (Skill #2), academic writing (Skill #9) and study skills (Skills #4 & #8) (including an academic panel session discussing 'what makes a successful student').

Students are also allocated to Pod mentoring groups. The idea of 'Pods' is based on the collective noun for a group of whales and consists of a collection of students, industry and academics. An individual Pod approximately consists of three 1st year students, three 2nd year students and three 3rd year students; at least one industry member, and an academic to help with facilitation. There are a number of formal and informal Pod activities designed to improve the relationship between members.

The formal Pod activities in PD #1 included a campus trivia tour, library trivia tour and study skills workshop (Skills #1, #7 & #8). Additionally, there is a Pod meeting involving the industry member, with discussion about the importance of 'learning' at work and at university (Skills #1 & #10).

In addition to funding, industry assisted in the delivery of a number of sessions in PD#1 for the 1st year students, including '*personal planning*' (Skill #2), '*goal setting*' (Skill #3) and '*networking skills*' (Skills #1, #6 & #10). Furthermore, the major industry session held in PD#1 is a networking breakfast on the third day, which enables students and industry (approximately 25 industry members attended) to talk to each other about university and the profession (Skills #6 & #10).

#2: Second PD Days: End of May

The second instalment of the PD Program ('**PD#2**') is held over two days in the week prior to the start of the second trimester (May). PD#2 focused on improving 1st year students' academic skills and preparing them for the job application and interview process. Industry delivered a number of sessions including a HR Panel Session on '*What firms are looking for in graduates*' (Skill #10); '*Professional Presentation*' (Skill #6), '*Different Roles in the Profession*' (Skill #10) and '*Internship: Opportunities and the Challenges*' (Skills #2, #3, #4, #5, #7 & #10). The major industry session for PD#2 was a networking lunch, followed by '*Speed Dating Interviews*' which allowed 1st year students to do a number of quick 5 minute interviews with industry to gain confidence with them, as well as enhance their knowledge about the profession and different firms (Skills #1, #6 & #10).

In terms of university-led activities, a workshop was conducted on advanced excel spread-sheeting skills to assist students with the software utilised in many of their business assignments (Skills #4 & #8). Career service advisors conducted sessions on CV writing (Skills #9 & #10), letter of application (Skills #9 & #10) and interview skills (Skills #1, #6 & #10), with a particular focus on the nuances of the accounting and financial planning professions. Learning advisors also conducted a session on oral presentation skills in preparation for internship interviews and the Student-Industry Conference in PD#3 (Skill #6).

Pod activities also helped cement relationships developed in PD#1. The Pod activities in PD#2 included sessions on '*confidence in drama*' (Skills #1 & #6), '*mock interviewing*' (Skills #1, #6 & #10) and '*Pod Olympics*' (Skill #7). There was also a Pod meeting with the industry member discussing '*what graduates should do in the first 5 years of practice*' (Skills #1, #6 & #10).

#3: Third PD Days: September

The third instalment of the PD Program ('**PD#3**') occurred over two days in the week prior to the start of the third trimester (September). The first day of PD#3 focused on improving first year

students' generic skills, with sessions such as intermediate research (Skill #4 & #8). Industry assisted in the delivery of a number of sessions for the 1st year students including 'Professional Framework of Practice' (Skill #4), 'Dealing with Clients' (Skills #1, #4 & #7), 'Relationship Building' (Skills #1 & #7), and 'Professional Practice' (Skill #10).

Pod activities occurred to enhance relationships between students and industry. The Pod activities in PD#3 included a session on 'practicing oral presentations' (Skill #6) and a meeting with their industry member, discussing the Student-Industry Conference theme 'Breaking the Drought: Sustainability - the Professional Challenge' (see below) and the importance of being innovative (Skills #5 & #10).

The second day of PD#3 was the Student-Industry Conference, which required students to present an assignment from one of their courses to an audience of peers, industry representatives and academics (Skill #6). In addition to the student papers, industry and academic papers were presented that explored the conference theme: (Skill #10). Industry involvement extended to the assessment of student presentations and participation in an awards ceremony for outstanding student presentations.

Research Methodology

This study employs a longitudinal survey methodology to examine the impact of the PD Program on first year students (the PD Students). The instrument was administered at the start of the university year in 'orientation week' in an attempt to capture students prior to engaging extensively with the university. The instrument was readministered 12 months later at the start of the students' second year to gauge the level of student development. In addition, a control group (the Control Group) of students in a similar degree that does not include the PD Program were surveyed at similar times as the primary sample. There are two cohorts of students who to date have been surveyed, being those students who commenced in 2008 (referred to as the 1st Cohort), and those commencing in 2009 (referred to as the 2nd Cohort).

Survey instrument

The survey instrument included four sections. The first contained standard demographic questions, with remaining sections containing questions about the students' satisfaction, perceptions of self-efficacy and generic skills. The focus of this paper is students' generic skills.

To determine generic capabilities, students were provided with a self assessment tool for them to evaluate their level of skill development. The inventory tool was based on the one developed by Lizzio and Wilson (2004: 115) which identified different domains of skills (10 of the 14 were used). The tool utilised ten broad capabilities, nine of which describe 'commonly identified areas of generic capabilities' – being: interpersonal skills, self management skills, learning and adaptability skills, problem solving skills, concept and analysis skills, oral communication, team skills, information literacy skills and written communication skills. The domain of 'career and vocational management' was also measured.⁴ Within each capability there are 15 statements to ascertain students' perception about them.

⁴ Due to time limitations and duplications, excluded domains from the original Lizzio and Wilson (2004) tool was organisational membership, community and citizenship, personal effectiveness and professional effectiveness.

These generic skills are determined by a number of behaviourally specific statements to represent the area of capability, which were categorised under multiple sub-domains (Lizzio & Wilson 2004, at p 115). For example, the questions asked to ascertain a students' self management skills are detailed in Table 1. Respondents self evaluated each of the statements on a seven point scale, from one 'not at all a characteristic of me' to seven 'very characteristic of me'. Questions 1 to 12 relate to demonstrating the generic skill, whereas questions 13 to 15 ask questions of the relevance of the generic skill to university study, future career and interest in development. Answers to the last three questions are analysed separately to the first 12 questions.

Table 2: Behavioural Questions for Generic Skills

SELF-MANAGEMENT
Self-Awareness/ Self Knowledge
I have a good understanding of my strengths and weaknesses and use this to inform my development
I know clearly why it is that certain situations or types of people seem to "push my buttons" or trigger a reaction from me
I have a clear sense of how others see me or the impact I make on people
Self Organisation
I manage tasks well – successfully prioritising competing demands on my time and energy
In meeting deadlines, I deliver on time – asking for extensions is something I very rarely do
I am able to persist with challenging tasks without getting distracted
Resourcefulness
I handle pressure and difficult situations well
When I "get in a rut" or "feel down" I can quickly get myself going again in a positive direction
If I have a problem I generally do something about it rather than hope it will go away
Responsibility
When I "stuff something up" I prefer to be accountable instead of "blaming others" or the "external conditions"
I am able to accept feedback or criticism from others without getting offended
When something is important to me I usually find I have the "courage of my convictions" and I take positive action
Personal evaluation on Self Management
How relevant do you consider 'Self Management' is to learning or doing well in your present course at University
How relevant do you consider 'Self Management' will be to your future work or career
How personally interested are you in developing your 'Self Management'

Descriptive statistics

For Cohort 1, a total of 178 useable student surveys resulted from this process (it was not mandatory for students to participate). Of these, 67 were from the PD Students in first year and 35 in the second year. For the Control Group there were 27 and 49 respondents in the first and second year surveys respectively. For Cohort 2, a total of 203 student surveys were obtained, with 93 from PD Students (65 first year and 28 second year), and 110 from the Control Group (86 first year and 24 second year). Summary descriptive statistics for the samples are provided in Table 2.

While the demographics of the PD Students are similar between the two Cohorts, there are some differences with the Control Group – especially the age spread. Between the PD Students and the Control Group there are also differences in terms of the population of international students, as there is a greater percentage within the Control Group.

Results and Discussion

Summary survey results for all the measures for generic skills are contained in Table 4 and Table 5 across the two data sets (the PD Students and the Control Group) and at two points in time (at the start of their degree and at the start of their second year) – for both Cohort One and Cohort Two. The data presented are averages of respondent's scores for each generic skill.

For Cohort One, PD Students appear somewhat cautious about their generic skills at the start of their degree. The lowest score of 4.12 out of seven was for written communication skills with the highest being 4.86 (for interpersonal skills and career and vocational skills). The uncertainty in regards to written skills is also not unsurprising given that many commencing students find academic writing in the tertiary environment a challenge in their first year of study.

Table 3: Descriptive Statistics

Cohort 1 Item	PD Students #1				Control Group #2			
	1 st Year		2 nd Year		1 st Year		2 nd Year	
N	67		34		27		42	
Gender								
Male	27	40%	12	35%	16	59%	15	36%
Female	40	60%	22	65%	11	41%	27	64%
Type								
Domestic students	62	93%	32	94%	20	74%	15	36%
International	5	7%	2	6%	7	26%	27	64%
Age								
Less than 20	42	63%	18	53%	14	52%	6	14%
20-30	19	28%	13	38%	9	33%	31	74%
30-40	4	6%	0	0%	4	15%	3	7%
>40	2	3%	4	12%	0	0%	2	5%
Entrance Score	10.2		8.9		10.8		9.7	
Cohort 2 Item	PD Students #2				Control Group #2			
	1 st Year		2 nd Year		1 st Year		2 nd Year	
N	65		28		86		24	
Gender								
Male	27	42%	8	29%	40	47%	10	42%
Female	38	58%	20	71%	46	53%	14	58%
Type								
Domestic students	62	95%	27	96%	50	58%	2	8%
International	3	5%	1	4%	36	42%	22	92%
Age								
Less than 20	42	65%	15	54%	51	59%	2	8%
20-30	18	28%	10	36%	31	36%	22	92%
30-40	3	4.6%	2	7%	3	3%	0	0%
>40	3	4.6%	1	3%	1	2%	0	0%
Entrance Score *	10.13		7.7		10		NA	

* Entrance score refers to the average OP (Overall Position) university entry score of the respondents.

The 2nd Cohort of PD Students appear slightly more confident in their generic skills at the start of their degree when compared to the 1st Cohort. However, three of the four weakest generic skills are common amongst the two cohorts, being oral communication (skill #6), written communication (skill #9) and conceptual & analysis (initiative) (skill #5). This is interesting given the prior research that these are some of the generic skills highly valued by employers.

After 12 months and three instalments of the PD Program, the 1st Cohort of PD Students demonstrate increased belief in the development of their generic skills. While three of their four weakest skills are still oral communication (skill #6), written communication (skill #9) and conceptual & analysis (initiative) (skill #5), these have improved markedly. Indeed, all ten generic skills have improved over the 12 month period for the PD Students in the 1st Cohort. For the 2nd Cohort of PD Students, their three weakest skills are slightly different, with oral communication (skill #6), interpersonal skills (skill #1) and conceptual & analysis (initiative) (skill #5). Nevertheless, like the 1st Cohort, the PD Students in the 2nd Cohort have improved in all ten generic skills even though they started the PD Program with more confidence.

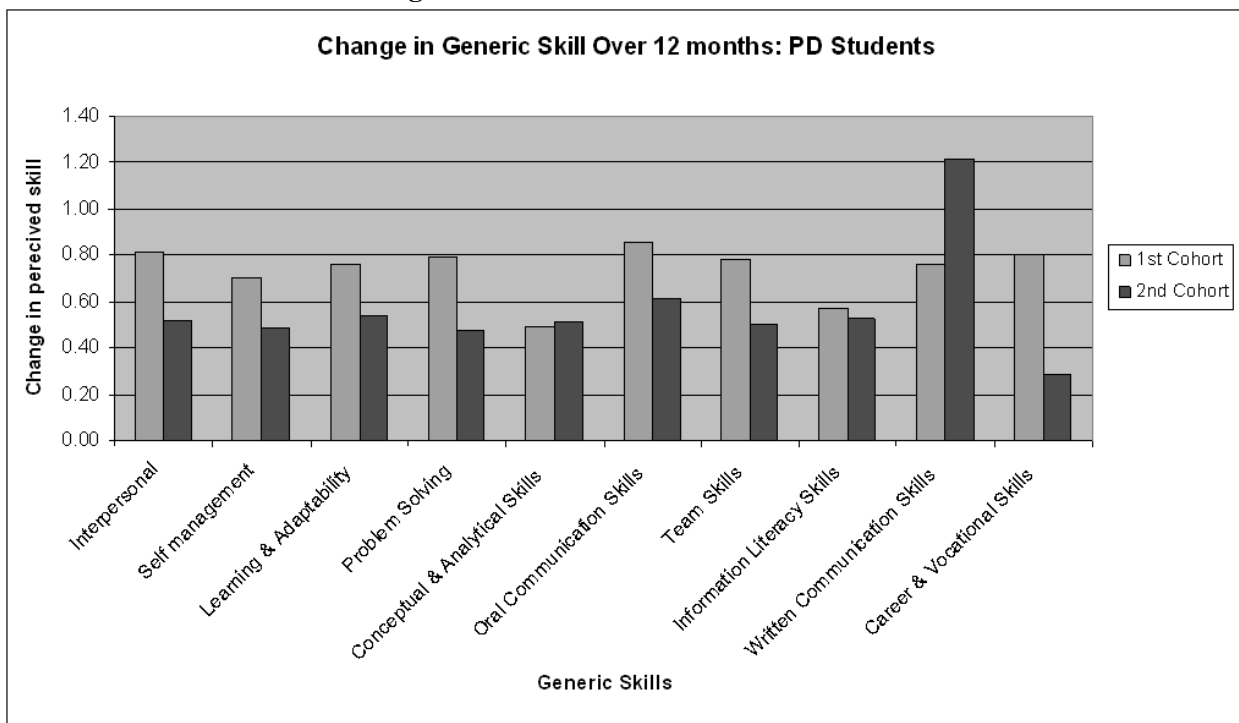
Table 4: Student generic skill development for PD Students and Control Group

Student Attribute	1 st Cohort		1 st Cohort		2nd Cohort		2nd Cohort	
	PD Students 1 st year	PD Students 2 nd year	Control Group 1 st year	Control Group 2 nd year	PD Students 1 st year	PD Students 2 nd year	Control Group 1 st year	Control Group 2 nd year
1. Interpersonal skills	4.39	5.20	5.09	4.47	4.61	5.13	4.72	4.76
2. Self management skills	4.74	5.44	5.22	4.87	4.98	5.46	4.81	5.01
3. Learning and Adaptability skills	4.69	5.45	5.21	4.79	4.89	5.43	4.74	4.98
4. Problem solving skills	4.50	5.29	5.22	4.55	4.96	5.44	4.67	5.26
5. Concept and Analysis (Initiative)	4.41	4.90	5.04	4.38	4.63	5.15	4.66	5.02
6. Oral communication skills	4.21	5.06	4.77	4.19	4.36	4.97	4.56	4.69
7. Team skills	4.72	5.50	4.97	4.44	4.97	5.48	4.89	4.60
8. Information literacy skills	4.71	5.28	5.22	4.70	5.22	5.75	4.90	4.98
9. Written communication skills	4.12	4.89	4.73	4.47	4.53	5.75	4.53	4.49
10. Career and vocational skills	4.86	5.66	5.28	4.80	4.88	5.17	5.05	4.99

The change in PD Students' generic skills in both the 1st and 2nd Cohort are demonstrated in Figure 3. The largest positive growth in skills for the 1st Cohort was in oral communication (skill #6), interpersonal (skill #1), problem solving (skill #4) and Career & Vocational (skill #10). For the 2nd Cohort, their strongest growth was in written communication (skill #9), oral communication (skill #6), interpersonal (skill #1) and learning & adaptability (skill #3).

For the Control Group their development over the first 12 months varies dramatically between the 1st Cohort and the 2nd Cohort. This may demonstrate if nothing else that the university experience without a PD Program can vary dramatically year to year. That is, the PD Program appears to give a greater consistent learning experience for those students involved. Other factors are inevitably involved which explain the variance from year-to-year with the Control Group such as the university's greater funding of and research on the first year experience in 2009, which included implementation of new innovates.

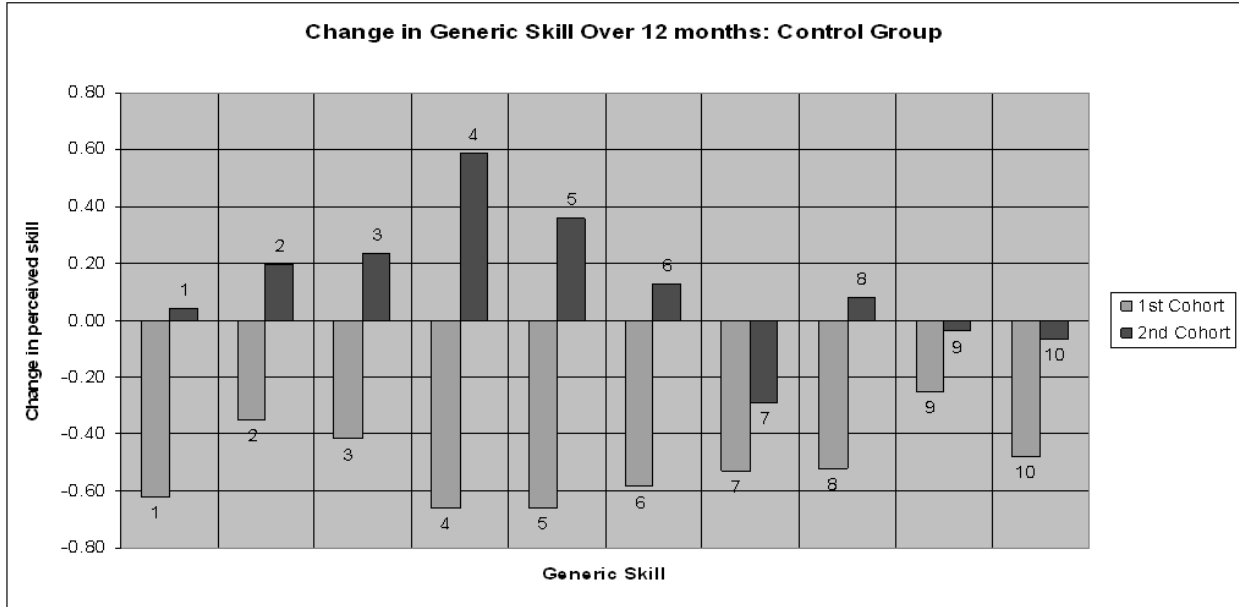
Figure 3: Generic Skills - PD Students



For the 1st Cohort of the Control Group in all measures they have reduced in their perceived generic skill ability after 12 months of study, with the largest declines in problem solving (skill #4), concept & analysis (skill #5), interpersonal skills (skill #1) and oral communication (skill #6).

For the 2nd Cohort of the Control Group the negative trend is not as strong, although three of the ten measures are negative being: team skills (skill#7); career & vocational (skill #10); and written communication (skill #9). Also, apart from problem solving (skill #4) and concept & analysis (skill #5), the improvement in generic skills over a 12 month period is less then 0.25 on a 7 point scale. Indeed, for interpersonal skills (skill #1) and information literacy (skill #8) the change in students over 12 months of their university experience is negligible. Figure 2 illustrates the change in the Control Group's generic skills over the first 12 months.

Figure 4: Generic Skills - Control Group



While Figures 1 and 2 reveal variance between the 1st and 2nd Cohorts of students, Figure 3 clearly demonstrates that the PD Students experience a positive change in generic skills over the 12 months compared to the Control Group in both Cohorts, with the exception of skill #4 problem solving. The ‘difference in change’ is the ‘change’ experienced by the PD Students (refer Figure 1) less the ‘change’ experienced by the Control Group (refer figure 2) in the 1st and 2nd Cohorts respectively. For example, the 1st Cohort of PD Students experienced a change of 0.81 with their ‘interpersonal skills’ over 12 months, whereas the 1st Cohort of the Control Group experienced a change of -0.62. This means the ‘difference’ in change for the 1st Cohort with interpersonal skills is 1.43. Indeed, the difference in change is greater than 0.40 in favour of both cohorts of PD students for five of the generic skills: interpersonal (skill #1); oral communications (skill #6); team skills (skill #7); information literacy (skill #8); and written communication (skill #9).

Figure 5: Generic Skills - PD Students vs Control Group

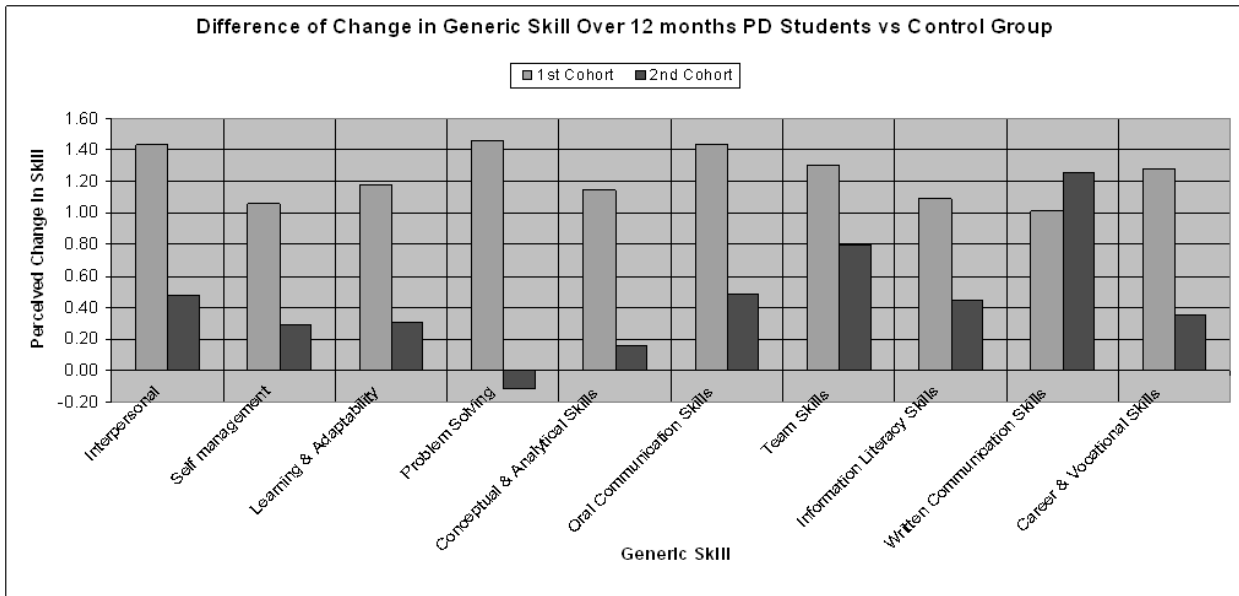


Table 5: Student perceptions of the importance of generic skills development

Student Attribute	1 st Cohort		1 st Cohort		2nd Cohort		2nd Cohort	
	PD Students 1 st year	PD Students 2 nd year	Control Group 1 st year	Control Group 2 nd year	PD Students 1 st year	PD Students 2 nd year	Control Group 1 st year	Control Group 2 nd year
Interpersonal skills	6.26	6.24	5.96	5.37	6.01	6.18	5.53	5.35
Self management skills	6.39	6.27	6.41	5.80	6.31	6.37	5.72	5.85
Learning and Adaptability skills	6.19	6.21	6.23	5.48	6.09	6.17	5.45	5.40
Problem solving skills	6.23	6.36	6.44	5.55	6.21	6.19	5.51	5.68
Concept and Analysis (Initiative)	5.97	5.98	6.07	5.33	5.89	6.09	5.33	5.40
Oral communication skills	6.24	6.61	6.47	5.51	6.42	6.59	5.38	5.24
Team skills	6.21	6.42	6.22	5.44	6.42	6.38	5.61	5.25
Information literacy skills	6.30	6.29	6.28	5.42	6.26	6.34	5.53	5.46
Written communication skills	6.22	6.62	6.35	5.45	6.39	6.34	5.60	5.46
Career and vocational skills	6.26	6.45	6.19	5.44	6.41	6.37	5.61	5.61

In terms of perceiving the importance of generic skills to their studies, careers and desire to improve, the PD Students consistently value these skills at a greater level than the Control Group. Table 5 contains summary results of these measures, and from an educators point of view it is pleasing to note the high scores that the student respondents in both groups provided. This suggests that there is some appreciation for the importance of developing these skills for both academic and professional purposes within these two cohorts.

Interestingly, the PD Students do not substantially change their views after a year of their degree. This, however, contrasts with the Control Group scores for the 1st Cohort, which at the start of their second year are lower in all cases and lower than the PD students. For the 2nd Cohort of the Control Group the negative trend is not as strong, with six of the ten skills being perceived as less important after 12 months of study.

It is concerning that the scores have declined, indicating a declining belief in the importance of generic skills development. Perhaps this relates to the decline in their abilities reported above (particularly with respect to the 1st Cohort), however which leads and which lags will require further investigation. The negative trend and the strength of that negative trend may be caused by a variety of factors including: the quality of the Control Group's respective first year orientation experiences in 2008 and 2009; the lack of assessment and/or teaching activities involving generic skills in the Control Group's first year courses; or that by their second year, for whatever reason, Control Group students were more concerned with completing courses of study (outcomes) rather than developing generic skills (process). From the PD Program perspective, the results provide further evidence of the positive impact that an integrated program may have on the student learning experience and student perceptions of generic skills.

Taken together, the results support a PD Program, with WIL components, in terms of the impact on students' generic skills. Of particular note are the significant gains in the generic skills capabilities of the students and the related maintained recognition of the perception of the importance of generic skills development in comparison to the students in the non-WIL degree. This, we contend, is related to the industry engagement in the PD Program, which allows the students to more clearly see the link between their academic studies and their future careers, underscoring the value of a genuine WIL experience and is in line with the received evidence and theory (Crebert et al., 2004; Kavanagh and Drennan, 2008; FPA, 2009). Our contention, which itself is a hypothesis worthy of further research in the area, is supported by: the high level of industry involvement in the PD Program; qualitative and anecdotal feedback from students and industry; and student survey responses completed at the end of each PD week indicating a greater level of satisfaction with industry delivered skills sessions compared to university-led sessions in the PD Program.

Limitations and future research

The findings of this study should be viewed in light of several limitations including the preliminary nature of the evidence, its case study nature in terms of its external validity, and the short-time frame of the analysis.

While it may be questionable to what extent first and second year university students can make meaningful judgements of their capabilities, there is some support that they appear capable of doing so (Lizzio & Wilson, 2004, at p 124). More objective measures could include behavioural skills tests, observations (Murphy, 1988) and open-ended interviews. To try to address this it is envisaged that at the completion of three years of study students will be asked to complete an exit test.

Conclusion

This paper highlights the impact that an integrated and continuous orientation program with WIL components can have on a cohort of students, in terms of their generic skills and provides strong initial evidence in support of the integrated PD Program design as implemented in the Professional Degree. In a wider context, the PD Program delivers a "not so generic" strategy to a higher education system

facing the challenges of first year retention and engagement, and industry demand for employment ready graduates.

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Responding to a challenge: Delivering teacher education in a remote community

WENDY GILES

Charles Darwin University

As part of the Commonwealth funded project, *Growing Our Own*, Charles Darwin University, in partnership with the Darwin Catholic Education Office, is delivering a preservice education degree program to remote Indigenous communities. This paper describes how the program is operating in one of the communities, using examples from the local context of Wadeye. In remote community schools, there is a high turnover of staff each year. In addition, there are very few Indigenous teachers, although nearly every classroom has an Indigenous Teacher Assistant particularly in the bilingual schools. There are other connected issues, such as school attendance statistics and providing role models for young people.

In order to build a more sustainable staff and increase the number of Indigenous teachers from within the local community, lecturers from CDU travel to five remote communities each week of the school year to deliver preservice teacher education to small groups of Teacher Assistants. Because they already work in classrooms every day, their ability to take a whole day for their university studies is only possible because of cooperation from their mentor teacher and the school. The program is designed to link closely with the daily work the Teacher Assistants are already doing in their classrooms. The learning tasks and assessment items are planned to complement and enrich their practice in the local environment, and to reposition them from being seen as Teacher Assistants to Teachers.

Other students in the course (Bachelor of Teaching and Learning) either live in Darwin and attend classes at the university, or they access units via the internet. Neither of these options is readily available to the students in this program. They are not able to move from their community because of a complex range of family commitments and responsibilities, and because of lack of resources. In addition, external study is especially difficult because of poor infrastructure and lack of internet access other than at school. So this method of delivery *in situ* is seen as a possible model to overcome these barriers.

The experience in one of these communities so far is that the Assistant Teachers who have been accepted into the program have remained passionate about completing their course and becoming fully qualified teachers. If this project is successful, and there is every indication that it will be, it may be a strategy which will lessen the number of teachers leaving the communities each year, and help to close the educational gap of the school students by providing them with teachers from their own cultural background and with their own first language. The integration of the university course work into the everyday teaching practice of the students (Assistant Teachers) in the classroom is a critical feature of the program.

Keywords: Remote, Indigenous, Community based learning, Partnerships

Introduction

It has long been of concern to educators in general, and Northern Territory schools in particular, that there are very few Indigenous teachers in our schools, and even fewer accessing teacher training at Higher Education providers (Fordham & Schwab, 2007). In addition, remote schools in the Northern Territory are notoriously difficult to staff in a sustainable way. It is difficult to attract quality experienced non-Indigenous teachers, and to retain them for more than a year, as they can feel isolated and exhausted in the bilingual and bicultural environment (Lyons, Cooksey, Panizzon, Parnell & Pegg, 2006; Taylor, 2010). This situation is hardly a recipe for developing strong programs and relationships with the remote communities who see people come and go like 'shooting stars' (M. Mullumbuk, personal communication, August, 2009), promising much, but delivering little in the long term.

There seems to be a relationship between these ingrained issues and poor school attendance in these communities. If the students do not see the school, its English speaking staff and its curriculum as relevant to their emotional and educational needs, then the incentive to attend is reduced (Lewthwaite,

McMillan, Renaud, Hainnu, & MacDonald, 2010; Martin, A., Marsh, H. W., McInerney, D.M. & Green, J., 2009), and lacking strong social pressure to go to school, the children often vote with their feet. Northern Territory Indigenous children's poor attendance record and low academic achievement has been well documented (NT Board of Studies, 2008; NT Department of Education and Training, 2008).

The Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA, 2006) recognised that universities have a role in collaborating more closely with schools to increase the confidence of Indigenous students in the relevance and attainability of higher education qualifications. The total number of Indigenous students in the teacher training courses at Charles Darwin University is small, and many of those do not intend to teach in a remote location (that is, out of Darwin). Attracting Indigenous students from remote locations is even more difficult as they have little access to resources such as the internet, libraries, computers and other students. They also do not have the ability to travel and stay in larger centres to attend courses internally. Completing a professional experience placement in another school would be a daunting task for an individual to organise, given their extensive family commitments, lack of resources and confidence, especially for those who have rarely left their communities apart from short trips for health reasons. Therefore,

There is recognition that the approach to Indigenous teacher preparation and recruitment needs to change. We need to be strategic, purposeful and bold in our approach to Indigenous teacher preparation. A new creative and practical approach is essential (Elliott & Keenan, 2008, Appendix A, p. 2).

The Growing Our Own Project (GOO)

In 2008, Charles Darwin University (CDU) and the Northern Territory Catholic Education Office (CEO) gained funding through the Department of Education, Employment and Workplace Relations (DEEWR) as part of the Northern Territory Emergency Response. It is a Quality Teaching Package which essentially aims to attract, develop and retain teachers, and embed, at the local level, good teaching practice to strengthen the existing education workforce, especially local Indigenous staff. It operates in the six remote communities, including Wadeye, in the Northern Territory which have a Catholic School.

The overarching goals of the program are:

- To empower Indigenous educators to join culturally relevant ways of being, knowing and doing with contemporary curriculum and pedagogical knowledge;
- To empower non-Indigenous teacher mentors to understand culturally relevant Indigenous ways of being, knowing and doing and infuse these with contemporary curriculum and pedagogical knowledge to strengthen opportunities for children's learning (Elliott & Keenan, 2008, Appendix A, p. 5).

Initially, intensive consultation was undertaken with the six remote Indigenous communities. Each community was visited twice, and consultation took place with the stakeholders. The program was outlined, and support requested from the community. Then, potential students were nominated by the community. Subsequently, those students attended a full day workshop during which the expectations and requirements were discussed. Each student was given the opportunity to make the necessary commitment, or to withdraw their nomination. Those who wished to join the program, four from each site, were enrolled in the Bachelor of Teaching and Learning Preservice, a four year education degree leading to teacher registration in the Northern Territory.

The delivery of this program is distinctive in that it harnesses and blends Assistant Teachers' extensive classroom experience and expertise with new knowledge about teaching and learning to meet course learning outcomes in practical ways relevant for each school and community context. All of the

Growing Our Own Program students were already working in their schools as Teacher Assistants (TAs), many of them having been there for a long time – more than twenty years in some cases. These people have extensive knowledge of the local culture, language(s), families and environment (Maher, in press). In the bilingual schools, where school instruction takes place in the child's first (non-English) language initially, and then English is gradually introduced over the years, they are an integral part of the classroom when the teacher speaks only English. They are also the main link between the families and the school.

Although the project was initiated at the senior levels of the CEO and CDU, the successful implementation of the program relies heavily on a series of critical relationships between the CDU lecturers, the TAs (also known as preservice teachers and CDU students), the school coordinators and the mentor teachers. Each preservice teacher is supported by a Charles Darwin University lecturer, a coordinator from the CEO, a school coordinator and a mentor teacher in their classroom.

When these TAs became preservice teachers and students in the Bachelor of Teaching and Learning, their ability to integrate their studies into their day to day work as Teacher Assistants was exploited, and they are gradually repositioning themselves in the classroom and the school as a teachers rather than assistants. This has resulted in developing authentic, culturally appropriate ways of progressively documenting student learning outcomes to meet CDU course and teacher registration requirements.

The CDU lecturer visits the site once a week (by plane, four wheel drive or boat) for the whole school year (typically 40 weeks) to deliver the academic course content, as well as to oversee the preservice teacher's planning and liaise with the school staff. The lecturer works closely with the school coordinator and also with the CEO coordinator. The school coordinator works with the group when the lecturer is on site, and then supervises the students' study and practical work for the rest of the week. The school coordinator also plays a crucial role in being the link between the coursework and the classroom practice, working closely with the mentor teachers to ensure that the preservice teacher completes thorough planning and receives feedback on lessons.

The mentor teacher has a special role in the project which has, as one of its aims, 'to empower teacher mentors to take leadership in understanding culturally relevant indigenous ways of being knowing and doing and to infuse these in contemporary curriculum and pedagogical knowledge to strengthen opportunities for children's learning' (Elliott & Keenan, 2008, Appendix A, p. 5). In other words, the mentor and the student teacher should learn culturally relevant knowledge and practices from each other, embedding them in the pedagogy and curriculum in the classroom. This collaborative model of preservice teacher professional experience is well documented in the report prepared by Associate Professor Christine Ure for the Victorian Council of Deans of Education and the Victorian Institute of Teaching (2009).

As well as spending every day either with the CDU lecturer completing academic tasks or with their mentor teacher in the classroom putting theory into practice, the preservice teachers were also required to complete a professional experience in an urban area, that is, Darwin. The importance of this cannot be understated. Many of the Preservice teachers have not attended or worked in any school other than the one in which they are currently situated. The Teacher Registration Board and the University have to be assured that they graduate with the capability of being able to teach in a variety of contexts. Arrangements were made by CEO to transport all of the GOO students to Darwin at the same time, and place them in schools with teachers who volunteered to work with them. The preservice students had the opportunity to meet with the other groups during this time to reflect on their experiences. They returned to their communities with renewed purpose and enthusiasm, keen to implement many of the new strategies they had learned.

So where other students in the BTLP access the course via learnline on the internet or by attending lectures and tutorials, the GOO students access the course by the lecturer coming to them, in situ. If this option was not available, it would be highly unlikely that they would be able to move to Darwin to attend classes because of their complex commitments to their families and community. Internet access

is patchy and not available in most of their homes, so online learning outside of the school is also impossible. Therefore, the GOO project has sought to overcome some significant barriers for students who would otherwise have little or no chance of becoming qualified teachers.

Wadeye (Port Keats)

One of the communities involved in the Growing Our Own program is Wadeye, a tribal Indigenous Catholic community of more than 2500 people situated on the western edge of the Daly River Reserve in the Northern Territory. The CDU lecturer takes a 50 minute flight to Wadeye in a twenty-seater, twin engine plane. During the wet season, Wadeye is cut off by road for up to five months, and air flight is the only option for travel, although food and supplies are delivered to the township each week by barge.

Until 1935, the complex and sophisticated social, economic and cultural systems of the Indigenous inhabitants of the region remained relatively unaffected up until the establishment of contact with non-Aboriginal influences in 1935 when the Catholic Church founded a mission. Services provided by the Mission attracted people from the tribal groups within the region, an increasing number of whom took up residence at Wadeye. These people were always considered as visitors by the traditional owners of Wadeye, the Kardu Diminin, and had none of the rights that go with the ownership of Wadeye land. This same attitude prevails today.

The community of Wadeye comprises of seven tribal clans, each of which speaks a different language, although the dominant language is Murinhpatha. This is also the language spoken by the Indigenous staff at the school. Wadeye is a proscribed community under the NT Intervention so alcohol cannot be bought or consumed unless a licence is obtained. Of the population of approximately 2500 people, 1500 are aged less than 25, 700 of whom are school age. The majority of school aged children do not attend school, despite various initiatives by the community and the school. There are 500 people aged 25-50 in Wadeye and only 100 people aged over 50. Between 60 and 80 babies are born in the community each year. It is estimated that the population of Wadeye will double in the next 20 years. There are 144 habitable homes in Wadeye, with an occupancy rate of approximately 16 persons per dwelling (Gray, 2006; Taylor, 2004).

Our Lady of the Sacred Heart School (OLSH) Wadeye, is a bilingual school. Murinhpatha and English are both used as languages of instruction at the school, although Transition (school entry year) is almost solely in Murinhpatha, and English is integrated thereafter. Most people in the community can speak basic English, including the children. There are two Indigenous qualified teachers working in the primary school classrooms, although there are at least four others in leadership and other non teaching roles in the school, including one of the deputy principals.

As described above, the three preservice teachers at Wadeye work alongside a mentor teacher in the classroom constantly, and have a school coordinator. The CDU lecturer attends for one or two days each week of the school year. The three women are extremely dedicated and enthusiastic about becoming 'real' teachers and role models for the young people in the community.

Integrating the Preservice Teachers' academic studies with their daily work in the classroom has resulted in a real change of their own and others' attitudes towards their status in the school. After several sessions with the lecturer dealing with inclusion in education, one of the Preservice Teachers went back to her classroom and collected some work samples from a student. She evaluated those, and then approached the school's Special Needs Coordinator with her concerns about the student. She explained that he was not achieving anywhere near the standard of the rest of the class, and used the work samples to illustrate her point. The Coordinator was extremely impressed.

This is the first time I have had an AT or indigenous teacher come and speak to me about student concerns. I was very impressed with the information she left with me and with the work samples she

provided me with. She certainly deserves to be congratulated on her confidence and initiative in this manner (Kristy West, personal communication, 28 April, 2010).

The students' own evaluations, which are captured twice each year as part of the accountability procedures of the project, also illustrate clearly the way that this model of workplace integrated learning has resulted in a paradigm shift for them about their status in the school and classroom. They see themselves as teachers now, rather than teacher assistants, and are more confident that their cultural knowledge has a real and meaningful part to play in the education of the children in the community.

I sit together with the teacher instead of with the kids.

We work together to plan lessons. I would like to do more planning with my mentor teacher.

I really love doing my course within my community. It has improved my skills and helped me to be a better teacher.

I like doing more study and I need to continue to study next year so I can become a qualified teacher. I enjoy doing lots of activities that I can do with the kids to help them learn.

For the students in the classrooms, we can now teach them in both English and Murinpatha using our own culture.

We wrote about bush tucker and we taught this to the students from the big book we made.

I am happy and looking forward to next year. (Ebbeck, M., 2009)

Not only do the students acknowledge the change in their own mindsets, but others in the school and from CDU have noted the transformation as well.

.... has grown in confidence as a result of working with the children. It is evident that she is 'thinking' like a teacher – in her planning and flexibility. She is enjoying teaching (Mentor Teacher).

I believe the Growing Our Own project has been invaluable in empowering the local staff in our school. My assistant Teacher,, has developed good skills and has taken responsibility for the students' learning (Mentor Teacher).

I think the Growing Our Own project is a positive opportunity for indigenous people to train to gain teaching qualifications. I love working with my student (Mentor Teacher).

One particular example which was mentioned in the evaluation feedback was the bush tucker book which followed a visit 'to country' by the students, lecturer and school coordinator. As part of the Technology and Design unit, as well as Science, Art and Literacy, the students researched and wrote about their local bush tucker in English and Murinpatha. They illustrated each entry, designed the cover and bound the book themselves. Then they each planned and took a lesson in their classes using the book as a resource, incorporating their local knowledge into their professional experience in the classroom. So integrating the academic theory, pedagogical knowledge and skills into the everyday classroom alongside the Indigenous ways of knowing and being has been fruitful.

The Two Ways learning Model

Nakata (2008) discusses the issues around teaching and learning for Indigenous students and suggests that we need to build on their existing knowledge and capacities, that they need much stronger support, and that curriculum and assessment design should take greater account of the challenges that they face. The Growing Our Own program has attempted to address some of these issues (Slee, in press).

The *in situ* delivery means that the preservice teachers can stay in their own school communities, enhancing the sense of belonging and trust. The development of strong relationships between the lecturer, the school coordinator, the mentor teacher, the student and the community is crucial in creating meaningful links between the learners' two worlds (Ladson-Billings, 1995), those of traditional knowledge and cultural systems, and the informed pedagogical theory and practice of today.

The lecturers, coordinators and mentors have confirmed that, for them, it has definitely been a 'two way learning' process.

Lecturer 1: I have learnt so much during my involvement in Growing Our Own. It has been a privilege to work with such generous and gentle people who are passionate about improving their own prospects and those of the next generation.

Lecturer 2: I feel that I have learnt far more than I have taught.

School Based Coordinator 1: All the students involved in Growing Our Own Project have shown a keen interest in their studies. They have been very generous in sharing their stories and hopes and dreams for the future with those of us who have been fortunate to work closely with them. This year has been an amazing time of learning for me (Growing Our Own report to DEEWR 18 December 2009).

Discussion

There continue to be challenges which require constant attention. The English literacy levels of the preservice teachers are a concern, family and community commitments can jeopardise the continuity of the learning, and the rapid turnover of (non local) staff in the schools means lack of consistency in the mentoring process. At other sites, some students have dropped out of the program for various reasons. The preservice teachers' results are rarely more than a pass, and they often take longer than a semester to complete a unit.

However, the Growing Our Own students at Wadeye are still passionate about their goal of becoming qualified teachers and role models in their community. They have made many sacrifices to continue in the program in spite of a complex set of other commitments. There is considerable diversity amongst the Indigenous students enrolled in Growing Our Own, and the basis for customising the content is recognition of their unique social, cultural, linguistic and cognitive characteristics (Elliott, 2009). The highly supportive and flexible model of delivering the program on site allows the preservice students to integrate their professional experience into their everyday work in the classroom. It allows us to build on their already abundant set of skills and knowledge, as well as their rich cultural heritage.

Current levels of low school attendance, inadequate resource provision and high staff turnover in remote Northern Territory schools are unacceptable. Indigenous teachers are best placed to bring relevant cultural knowledge, competence and skill to the students' learning in schools in remote Indigenous communities. These teachers provide a conduit between the local community and schools. Frequently, Indigenous staff members are the only long-term employees of remote schools, although

far too often they are only employed as Teacher Assistants. Local Indigenous teachers know their students. They live their culture and know the families of the children they teach (Maher, 2009).

The *Growing Our Own* program is attempting to respond to a social need in remote Indigenous communities in Australia's Northern Territory. Capitalising on existing social and kinship networks, the program seeks to create learning communities, which provide mentoring and peer support, while also providing mutual cultural understanding. Personal Indigenous knowledge is infused with contemporary teaching learning theory and practice. While Standard Australian English language literacy is developed and strengthened, local language is nurtured and supported. Knowledge is constructed collaboratively, between students, mentors, school-based coordinators, lecturers and peers (Elliott & Keenan, 2009).

Growing Our Own is resource intensive, and the final results are not yet known. It remains to be seen whether it is sustainable in the long term, and whether it successfully addresses the issues discussed in this paper. The effectiveness of the program may initially be measured by the number of successful graduates of the current course and whether the program is ongoing. In the longer term, an increase in the number of Indigenous teachers in our schools and teacher education courses, and a corresponding improvement in learning outcomes for the students in their schools, would be clear indicators of success.

In the words of one of the students at Wadeye:

Anyway the most important thing to do is to keep up our strongest link with the community and not the weakest link. For example some comments came from some people that made me feel strong, proud and good was by working among the people out in the community for our assignments was tremendous because people saw us what we were doing is extremely vital to our people especially our young ones who are doing nothing or just being lazy (Ngabe, 2009).

The program is dependent on deep and effective relationships between a diverse range of stakeholders and partners. Mutual trust lies at the core of these relationships. The strengths of individual preservice teachers have been identified and built upon and the program promises to enable them to work as effective practitioners at the conclusion of the course. The shift from the role of Teacher Assistant to teacher is well underway through this innovative approach to work integrated learning.

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WIL on Campus: Simulation, “Half-way House” or genuine work?

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There are a number of strategies to overcome attrition issues and one of these focuses on the student’s engagement with the university. If the university is both a workplace and educational environment to the student then the student is likely to be spending many hours on campus, which can make it a familiar comfortable environment. In other words, the motivation to spend time on campus may be increased and increased time on campus is inherently valuable as research has shown a positive correlation between amount of time spent on campus and a positive student experience (Kift, 2008; Tinto, 2009). As most students regard the university as a place for study, does this mean that employment on campus is regarded differently from employment off campus? Does having a supervisor who is also a language and academic skills lecturer mean that that the working environment is more supported than it realistically would be in a non-educational organisation? Is the strategy of using the university as a workplace one that assists the transition of students to employees?

Keywords: Work Integrated Learning, engagement, transition

Introduction

Work Integrated Learning (WIL), Learning in the Workplace and Community (LiWC) and its various alternative names, Business Integrated Learning, Work Based Learning, Cooperative Education, have become high focus initiatives for many universities. They are being marketed as a point of differentiation between courses and between universities. The term LiWC is used in this paper as that is the term used by the researcher’s university. The first section of this paper will briefly present thinking around LiWC from the United Kingdom, USA and Australia which indicate that similar trends are happening in these three countries. The second section reviews points of connection that students have with their particular place of study and the evidence that more points of connection, usually indicating more substantial engagement, can address issues of retention and attrition. The investigation presented is a small scale on-campus placement consisting of two students.

Combining LiWC and employment opportunities on campus is not itself new but at Victoria University (VU) it has recently been formalised within the program “Students as Staff” (Victoria University, 2009b). This has increased the focus and with it, the numbers of students involved. Questions that the program is raising for both staff and students include “How authentic is the university as a workplace?” “What are the responsibilities of an educator who is simultaneously a LiWC supervisor?” “How effective can an educator/supervisor be?” The latter questions were raised by Hughes (2002) in his research into workplace supervisors as facilitators.

The current investigation is a result of employing two VU Bachelor of Business (Event Management) students at Victoria University, Melbourne, to assist with the planning and organising of VU’s annual teaching and learning conference with Chinese partner institution staff in China. The conference is a genuine event and the students are being paid by the hour. Both students were completing the compulsory work integrated learning hours required by their course. They were supported from induction to completion by the author.

LiWC in UK, USA and Australia

In both the UK and USA education policy in the 1990s embraced the need for university and industry linkages to develop employability skills for students. The USA approach sought to determine the broad workplace skills needed for the “world of work” (Secretary's Commission on Achieving Necessary Skills (SCANS), 1992) whereas the UK approach started with specific industry “key skills”

(National Committee of Inquiry into Higher Education, 1997). The same document, also known as the Dearing Report identified that "... there is growing interdependence between students, institutions, the economy, employers and the state ..." and went on to argue that "... this bond needs to be more clearly recognised by each party ..." (Dearing, 1997, p. 1). The initial debates surrounding the appropriateness of embedding non-technical, or so called 'soft-skills', into curricula have subsided and attention has shifted to an exploration of the range of attributes, the location of skills development and methods of assessment (Department for Education and Employment (DfEE), 2000).

In the UK, Yorke and Harvey (2005) state that recruitment documents are calling for graduates to exhibit more and more non-technical skills if they are going to be successful in the recruitment process: "Having a degree is just the start ... employers ... seek a range of qualities ..." (p.41). The Leitch Review of Skills, "Prosperity for all in the global economy – world class skills" (Leitch, 2006) benchmarked UK against other OECD countries to identify strategies for long term economic prosperity, productivity and social justice. He highlighted significant educational and skill shortfalls for basic literacy and numeracy as well as for intermediate and higher level skills. Developing these themes, Stapleford and Leggott proposed curriculum initiatives "to improve the development of skills within degree programs by auditing and evaluating the current employability element, incorporating employability more coherently and comprehensively into the course curriculum and making all skills more explicit in the curriculum and course documentation" (2008, p. 8). Gunn, Bell and Kafmann (2010) note, however, that sometimes it is appropriate to develop employability skills externally to the curriculum. This is particularly so and opportunities need to be increased if students are to fully comprehend what it means to have business and customer awareness as well as demonstrate workplace specific innovation, collaboration and risk taking (CBI & Universities UK, 2009).

Another trajectory of the debate in the UK is understanding what is construed by the term "professionalism" and being professional. Barnett (2007) refers to this employability skill as the will to learn as demonstrated by students and then the professional will that is needed for life-wide professional development. It is the most complex, most fragile and least tangible of the employability skills as it questions the difference between knowing and knowledge and who is "pulling the strings". If lost, then commitment and motivation decreases; clearly a challenge for teaching at any level. Eraut (2007) has investigated professionalism more pragmatically than Barnett. He advocates the importance of observing, listening and participating for students on work placements in order to gain an insight to the tacit knowledge and different perspectives that may be complicated or sound vague when explained. He stresses that professional practice may include intuition, spontaneity, decisions based on quick reflection, decision making requiring more substantial reflection, transfer of knowledge between contexts and between people and workplaces that are anything but homogeneous (Eraut, 2008). To acquire these skills, to have confidence, commitment, personal agency and motivation, the learner needs feedback, support and trust from workplace colleagues (Hughes, 2002; Eraut, 2008).

In Australia the recent round of research arguably started with the Employability Skills for the Future report (Department of Education Science and Training (DEST), 2002). This report identified employability skills as being made up of key skills (see Table 1) and personal attributes that were applicable regardless of employee position/role, industry sector and enterprise size. The difference between businesses lay in the order in which they prioritised such skills and attributes. The personal attributes were: "loyalty, commitment, honesty and integrity, enthusiasm, reliability, personal presentation, commonsense, positive self-esteem, sense of humour, balanced attitude to work and home life, ability to deal with pressure, motivation and adaptability" (DEST, 200, p.7).

Table 1: Key skills component of Employability Skills Framework (DEST, 2002, p.7)

Skill
Communication ... that contributes to productive and harmonious relations across employees and customers
Teamwork ... that contributes to productive working relationships and outcomes
Problem solving ... that contributes to productive outcomes
Planning and organising ... that contributes to long and short term strategic planning
Technology ... that contributes to effective execution of tasks
Life-long learning ... that contributes to ongoing improvement and expansion in employee and company operations and outcomes
Initiative and enterprise ... that contribute to innovative outcomes
Self-management ... that contributes to employee satisfaction and growth

In 2007 the government funded project *Graduate Employability Skills* was released. It found that Australian universities are integrating employability skills into almost all courses as a subset of the graduate attributes, that the employability skills that are easier to teach and assess are focused on more than other skills, that students without a workplace experience are less likely to engage with and value the teaching of employability skills. The report also concludes for all the strategies being implemented to improve the work-readiness of graduates, there is little evidence-based research that systematically compares the effectiveness of each (Precision Consultancy, 2007, p. 1). In fact the “why” is not disputed; the “how” to integrate and teach employability skills is the complex factor.

Universities Australia (2008, p. 15) in a positioning paper proposed a National Internship Scheme as a means of enhancing the skills and work readiness of Australian University graduates. Following this theme, feedback from key stakeholders showed support for a national scheme that refines employability skills through university programs and courses. Universities Australia argued that graduate employability issues should not be matters for university action alone and that there should be well developed industry partnerships. At the same time, it is desirable for universities to embed employability skills as part of the graduate skill set through curriculum design, course content and delivery.

LiWC at Victoria University

At VU, the aim is for a minimum of 25% of course assessment to apply to learning in the workplace and community (LiWC) (Victoria University, 2008b). It is intended that LiWC learning and assessment activities are embedded in all courses as a fundamental part of the educational process and should explicitly develop VU’s Graduate Capabilities: problem solve in a range of settings; locate, critically evaluate, manage and use written, numerical and electronic information; communicate in a variety of contexts and modes; work both autonomously and collaboratively; work in an environmentally, socially and culturally responsible manner; and manage learning and career development opportunities (Victoria University, 2008c). The VU LiWC policy proposes a flexible interpretation of what 25% of all assessment means. Rather than focussing on a precise quantification of LiWC the policy presents an interpretation which places quality teaching and learning above mere compliance with a numerical target. In other words, the policy supports a course with less than 25% of LiWC assessment if the experience is demonstrably a valuable one. The staging of LiWC across a course and the overall time devoted to learning in the workplace and/or community activities varies greatly depending upon choice of approaches, professional accreditation requirements and regulations.

Within the approach adopted by VU, LiWC is deemed to be learning and assessment activities that occur in, for and through the workplace, including in the community, as a site for teaching and learning. In this interpretation of LiWC “workplace” is any place where individuals (paid or voluntary) conduct real or simulated work activities or research. Hence, workplaces may be real, simulated or virtual, in the private, public or community sectors, and range from multi-nationals and government agencies, to small to medium enterprises and community based agencies.

Thus, LiWC activities may take place across a broad range of settings, including: in the workplace or community enterprise, in the classroom (where projects are undertaken for a workplace or community enterprise), and within the VU workplace and learning community. The range of activities includes such things as assignments that require students to visit an organisation for the purpose of observation, data gathering or interviewing employees. Such an assignment entailing a workplace visit represents an “entry level” LiWC activity. For an undergraduate student, a simulation could occur in many disciplines, both online and face-to-face, at this point or at any point prior to the student assuming the role of employee. At the further end of the continuum of LiWC activities are such things as internships and Co-Operative Education (CoOp) work placements (Keating, 2006). In paid, long term, full time placements students are likely to be trainee employees in specifically designed jobs. Short term placements often involve project based work and provide experience with a range of professional operational tasks. The author regards these placements as “job-plus” environments due to the work environment being well supported as well as academic commitments being supported. In other words the employer not only provides a job, with a formal role and responsibilities, but also understands and facilitates the academic aspects of the WIL experience. The author raises the idea of “Half-way House” – neither job nor study - for campus-based positions on the basis that they are “job-plus”, that is even more supported than non-campus positions, but also the student may remain with the same social group in the same physical location and hence have ready access to academic and support staff and facilities such as the library. The potential negative aspect would be if in the “Half-way House” model the employer and the student are not able to focus on the job role.

Engagement to assist retention

For many reasons, attrition rates at VU are high compared to other Australian universities. Over a 10-year period, the rates have been around 25% (Gabb, Milne, & Cao, 2006). Student engagement is a key factor in attrition. VU’s students typically have lower levels of engagement than peers at other Australian universities; they spend less time on campus, less time in private study and have fewer contact hours per week (Gabb, 2006). The first year is crucial for attrition (Gabb, et al., 2006) and therefore for maximising engagement but the problem does not simply disappear.

Engagement can occur in many ways and many of the LiWC activities enhance engagement. Krause’s work on student engagement is a useful reminder of how to maximise engagement when designing curricula and extra-curricular activities:

Engagement refers to the time, energy and resources students devote to activities designed to enhance learning at university. These activities typically range from a simple measure of time spent on campus or studying, to in- and out-of-class learning experiences that connect students to their peers in educationally purposeful and meaningful ways (Krause, 2005, p. 3).

“Students as staff”

The engagement offered by the “Students as staff” program can be significant; the jobs offered are genuine, not simulated. It allows the students to establish a new “employment” role and to move between roles and develop a different perspective of the university. Of course, changing “hats” from student to professional on the same day, in almost the same location, can also be unsettling as it can involve quite different expectations and behaviours. Nevertheless, most students enrol at VU to enhance their employability prospects and VU is keen to support graduates’ transition into “the workforce” through numerous preparatory initiatives both within the curriculum and in extra-curricular programs. The “Students as Staff” program both develops employability skills and engages students in a manner that addresses the attrition issue in Australian universities. Of course, how VU supports students to successfully engage in any workplace activities and learning is important.

Based on ideas from University of Texas, El Paso, and a feasibility study carried out in 2007 at VU, an ethical and sustainable “Students as Staff” model was adopted which focused on casual positions and contained a pre-employment training component. “Students as Staff” placements are intended to be long term however this is not always the case. The benefits identified for VU’s students were: study and work in one location, preparation for graduate employment and student engagement. For the university the benefits were: increased opportunities for LiWC on campus, support for the LiWC policy, increased student engagement, and greater awareness by students that VU is both an educational institution and a workplace; at a department level the model enabled cost effective recruitment, employees with a basic knowledge of VU and fresh ideas, skills and energy (Victoria University, 2010). The campus based employment environments vary in the independence, creativity and commitment required which are factors that contribute to the perception of an activity being simulation, “half-way house” or genuine work. CBI and Universities UK (2009) argue that the more immersed a student is in a real workplace experience then the more likely students are to see the relevance of their learning, understand the skills needed and be committed to the workplace experience and their studies.

Current Study

Many of VU’s Bachelor of Business subjects contain optional LiWC related activities; however, for Event Management students the workplace component and accompanying academic unit of study are compulsory. Given the nature of the event industry, there is a role and a need for short term placements. For maximum impact, the short term placements are formalised regardless of them also being part time.

In December 2009 an advertisement (see Table 2) was placed with VU’s Centre for Work Integrated Learning for two Bachelor of Business students specialising in Event Management to work with the lecturer coordinating the VU and Chinese partner universities’ annual teaching and learning conference. The students were required to submit their Curriculum Vitae and attend an interview. There were no documented Selection Criteria that they were required to address. The research question being investigated here is whether the students regarded their placement as “half-way house” or genuine work.

Table 2: Job advertisement

The students will be based in Melbourne, even though the 2010 event, as with previous years, will be held in China.

The duties are:

- To advertise event
- To coordinate monthly meetings of VU participants
- To work with various VU departments including VU International to create an up-to-date contact list
- To assist with travel arrangements
- To organise accommodation
- To construct brochure
- To develop conference manual
- To create name badges
- To review venue, equipment, meals
- To track costs
- To timetable academic and social events
- To develop daily running sheet
- To develop daily evaluation sheet

Time requirement will probably be a maximum of a morning or afternoon per week from March to June but I would like the 2 students to meet some of the Chinese partners who will be visiting Melbourne between 14th and 18th December 2009.

Location: FP Building M, level 3.

Remuneration: \$21 (HEW 2.1) per hour for max 3 hours per week for max 16 weeks per student.

Two female Event Management students applied and both were selected. One of the Event Management students is in second year (S2) and one is in third year (S3). They are both Australian born, native speakers of English and have entered university immediately on completing secondary school. The third year student is concurrently completing the Co-Op academic unit of study, for which the assessment tasks are designed to guide students towards a reflection on the integration of their academic and workplace learning. The VU Co-Op subjects' aims are to have students explore their workplace context by examining the organisational structure and identifying and defining their individual role as active and accountable employees within the organisation as well as that organisation's position within the respective profession and/or industry. Furthermore the Co-Op units of study seek to facilitate the development of an understanding of the key issues relating to the students' transition to the professional workplace, including workplace culture, professional etiquette and communications (Kimber, 1996). The Co-Op subjects also encourage an exploration of key processes such as employment legislation and industrial relations, reporting accountabilities and performance appraisals; identify the key generic skills required by their employer/industry, and their relationship to Victoria University's Graduate Capabilities.

Evaluation of placement

Three semi-structured interviews were conducted with the two event management students: one with each of them individually and one with them together. The interview questions were developed following a review of the relevant literature, a review of the pertinent aspects of the VU LiWC policy and discussion with expert LiWC practitioners and lecturers at VU.

Semi-structured interview indicative questions:

1. What attracted you to this internship program?
2. Would you choose a university based internship program again?
3. Would you recommend university based internship programs to other students?
4. Please describe your duties.
5. Based on the work that you have been doing what personal characteristics do you think are needed?
6. Based on the work that you have been doing what workplace skills do you think are needed?
7. Which of VU's Graduate Capabilities have been relevant? (show list)
8. Which of the Employability Skills have been relevant? (show list)
9. Would you consider that there are any areas/activities that you have been asked to do which are more suitable for student interns than other areas/activities?
10. Have there been any activities that you have been asked to do which you think are inappropriate / too difficult / too easy?
11. Which tasks have you needed help with?
12. What have you done when you have needed help on a task?
13. What other support could have been provided to help you with the work?
14. Would some sort of simulation exercise prior to this internship have been valuable?
15. What specific business skills did you bring to the work?
16. What specific business skills do you think the work helped you to develop?
17. How long should an internship be? A year? Six months? Three months? Long university vacation (summer break)?
18. What was the most difficult thing to manage while being both staff and student?
19. What other kinds of projects or problems do you think students should be employed to do at VU?
20. Is there anything else you would like to comment on?
21. In summing up, what are the advantages of a job inside the university versus a job outside the university?

Findings

Both students regarded the work as a great opportunity. For S2 it was a way of confirming her career choice: "It was an opportunity, very early in my degree, to work on an event, starting from the very beginning to all the way through its completion. It offered great experience in the events field which I would like to be involved with once I have finished my degree". For S3 it has added to her knowledge: "it has been really fun to get involved behind the scenes in tasks". S2 enthusiastically wanted the work to continue: "I wish I could do this for the rest of my time at university".

Neither student used the same language as used by the Graduate Capabilities and Employability Skills documents. They did not distinguish between personal characteristics and workplace skills except for the personal characteristic of determination as mentioned by S3: "determination to get the job done". S2 identified: "Computer skills for those spreadsheets, communication to write those emails and make those calls at a professional standard... and we needed cooperation so we could work well within the assigned team. We also had to work out who does what in order to complete set tasks".

None of the tasks were deemed inappropriate, too easy or too hard. With regards to help and support, this was often required according to S2: "Probably all of them at some stage". For S3, more support could have been provided early on: "Maybe at the beginning I should have been shown paperwork of what has been done previously, sometimes it was hard to picture what was needed" and "I've needed clarification on certain facts or details to get a particular task done. For instance I've needed help with spreadsheets, the manual and presenting minutes from meetings". Although the students were physically located with the department's administration staff, rather than ask the administrators, other

team members who were not physically as close were seen to have the expertise needed: “I have asked the person who would be most appropriate to help for that particular task [from the team] and have also asked my team member as she may have understood what needed to be done” (S2).

The two students started with and developed different skills. S2 believed she started with spreadsheet knowledge and reasonable planning and organisational abilities. She identified communication skills and organising tasks to meet deadlines as the skills she developed through the work. S3 was quite adamant: “I’ve required assistance with new software and things like googledocs”. S3 has realised that her spelling and written communication is often less than professional and she is aware her cultural awareness could be broadened. Both have developed their professional confidence: “We have been asked to communicate with a number of staff members in senior positions within the university both over the phone and via email and have therefore required the confidence to approach people in positions of power”.

With regards to the value of a simulation prior to organising a genuine conference, the students had mixed feelings. They felt that the non-responses to emails, incomplete information provided by conference attendees, miscommunication with the hotel and last minute inclusions for the conference manual could be simulated but if there were any inkling at all to it only being a simulation then the peaks and troughs of real pressure would disappear. S2 said “We know this is important. We can see it in your commitment. Besides, you couldn’t manufacture the meetings we’ve had [with the lecturers who are attending]”. They both mentioned that their personal commitment would be less if they knew an activity was “merely a simulation” (S3).

The difficulties identified were the same as those that might be identified with a non-university workplace: “University workload, along with making sure certain tasks for the event were done or at least underway in a timely fashion, as well as balancing it with personal commitments as well” (S2). Studying and working in the same location was thought to be very convenient but “the job still had to be worth it” (S3).

Discussion

Two students were employed based on the idea that they would support each other and that a more realistic team approach could be developed in line with CBI and Universities UK (2009) and Eraut (2008). This outcome seems to have been realised, fortunately, as they were not often under direct guidance. While they both found the support and feedback they needed in presumably a timely fashion, their knowledge of the university and other avenues for support may have been improved if they had completed the “Students as Staff” induction. Whilst the work required the students to spend more time on campus and they did so willingly, there were tasks that could be completed online from home and the students often chose to do so, simply to cut down on travel time and cost.

There was no indication in any of their comments that they regarded their university employment as anything less than genuine work. They regarded the support they received, which was more email based than face to face, as normal and in some workplaces it would be. However, the outside part-time jobs that both have had have not been complex ones requiring a lot of supervision so their ability to know how much support is “standard practice” is limited. Interestingly another staff member commented “I would regard the work that the students have been undertaking as for the most part appropriate, although due to the independent nature and lack of direct supervision for some of the tasks involving new technologies and written communication these may have been more challenging than was entirely appropriate”. The students did not state that it was difficult to move between the roles of student and employee. Nor did they note any confusion between the academic team member who was both lecturer and supervisor. As that person, and now as the researcher, I must admit to at times being fully aware of the students’ educational needs and at other times being very task-focused. I know when the students did ask a question that connected learning happening in the workplace to their studies I tried to engage fully with the questions they raised. Obviously some supervisors who

are not educators would also do this, others would not. In a similar manner, the students were sometimes task-focused and engaged with the university as a workplace and at other times, when they were thinking of assignments the university became their place of study.

Confidence building, skill development and a nascent independent work ethic was evident to their supervisor who endeavoured to treat the students as junior colleagues within the team. Taking accurate meeting minutes and transcribing these in an intelligible and well-structured way has been a task both students have required help with, and this is a difficult task for anyone who is not familiar with the subject matter or the meeting attendees.

That the language used by the Graduate Capability and Employability Skills documents was not used by the students does suggest that more explicit focus on them could be built into the curriculum especially if this is the language that employers are looking for in job applications, let alone want demonstrated. The academic assessment undertaken concurrently with Co-Op requires the students to analyse the Graduate Capabilities and relate them to instances of learning so it is a concern that the students' use of the terminology is limited.

Conclusion

The current study sought to discover the value of one model of Learning in the Workplace and Community and determined this through one instance of the university as a genuine workplace. The idea of it being a place of transition, a "half-way house" was not the perception of the students. The model worked extremely well in this instance for all participants. All the conference requirements for the event, which is to be held in July 2010 in Chengdu, China, are running to schedule. Funds have now been made available for the students to travel to China to assist with the conference registration, respond to delegate enquiries and contribute to the workshops on Learning in the Workplace and Community.

According to VU's Learning in the Workplace and Community Policy the workplace experience of these students is an example of the ideal form of workplace engagement. Except for some occasional educational insights provided by the supervisor, the university is a new workplace to the students. The students are performing the same duties and accepting the same level of responsibility as would apply to fully trained novice professionals. Moreover, these students are being paid market rate salary and are exposed to a broad range of professional tasks which build their professional skills, knowledge and abilities.

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Mapping workplace assessment practices across the disciplines: Towards the implementation of more effective processes to support work-integrated learning

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Introduction

The assessment of work-integrated learning (WIL) for students of the health-related disciplines continues to provide fertile ground for educators and researchers alike. The need for multiple approaches to gauge the level of learning in clinical or field placements suggests the complexity of the process (Murrells, Robinson, & Griffiths, 2009). Further, although there is agreement that both discipline-specific and generic workplace skills are necessary to enable effective and efficient workplace practice, debate continues as to how these skills may be meaningfully assessed (Bryans & Smith, 2000; Cassidy 2009a).

This paper describes a project undertaken by the Faculty of Health, University of Canberra, in response to feedback received from students, academics and industry representatives about WIL assessment practices. The project was driven by representatives from disciplines across the Faculty, and enabled identification of the processes involved in clinical or field placement and WIL assessment. This, in turn, provided the evidence to jointly develop recommendations to improve and standardise these processes. The project also fostered responsive engagement with industry representatives, and greater understanding of student frustrations. In conclusion, findings of the project provided a valuable first step in the evaluation of the effectiveness of Faculty-wide changes aimed at improving WIL for students at the University of Canberra.

Background and context

The Faculty of Health, University of Canberra, comprises the disciplines of nursing and midwifery, nutrition and dietetics, pharmacy, physiotherapy, psychology, and sports studies. Each of these disciplines has distinct identities that demand differences in course curriculum; and give rise to quite disparate workplace and professional registration requirements. Each of the disciplines is also characterised by its own set of 'technical' workplace skills or practices – that is, the skills or practices that express the specialised knowledge of the discipline or profession, and which are typically utilised by practitioners who belong to that discipline or profession. At the same time, the health disciplines

also share a number of important similarities. For example, students from across the Faculty are required to undertake clinical or field placements in a health-related context as a means of achieving the learning outcomes of their courses.

The levels of satisfaction expressed anecdotally by students, academics, and industry representatives from all the disciplines in relation to WIL suggested the need for focussed development in the area of assessment. Feedback indicated a shared desire to develop improved ways of assessing the discipline-specific technical skills demonstrated by students; and also the generic workplace skills, including an ability to communicate, problem-solve, work with others, find information, commit to life-long learning, and exhibit professional and ethical behaviours.

A review of the literature related to WIL for students in health-related clinical or field placements identified support for this anecdotal evidence (Cassidy, 2009a, 2009b; Ernstzen, Bitzer, & Grimmer-Sommers, 2009; Delitto, Irrgang, & Fitzgerald, 2007; Lawson et al., 2003; Varkey & Natt, 2007; Winter, Matters, Nowson, & Torres, 2002). In particular, a number of commentators note the inherent complexity of assessing WIL, and the necessity of utilising multi-method approaches to enable meaningful and effective assessment (Murrells et al., 2009; Redfern, Norman, Calman, Watson, & Murrells, 2002). Others have noted confusion around the understanding and evaluation of the student 'competence' or 'proficiency' in the workplace (Farris, Demb, Janke, Kelley, & Scott, 2009). Such confusion further complexifies the overall process of assessment, as it raises questions about levels of skill attained by the students and how these levels of skills may best be measured.

To exemplify, in a systemic review of the literature related to the assessment of the competence of nursing students in the workplace, Watson, Stimpson, Topping, and Porock (2002) found that the majority of the methods used had been developed haphazardly, and issues around reliability and validity had still to be addressed. In contrast, a study of physiotherapy students (N = 81) across five clinical sites found that educators demonstrated a high level of reliability in the assessment and marking of undergraduate student performance using a standardised clinical assessment form (Meldrum et al., 2008). Likewise, Pender and Looy (2004) describe the effectiveness of an assessment tool that utilises a visual analogue scale (VAS) to measure the workplace learning of dietetics and nutrition students (N = 43). Such findings suggest different stages of progress across the disciplines and professions in relation to assessment of the technical skills.

Progress around developing tools to assess the generic workplace skills is less evident in the literature. The terms 'generic skills', 'generic attributes', 'graduate attributes', and 'generic graduate attributes' are used in the literature interchangeably – this paper will use the term 'graduate attributes' (GA). According to the *Achieving Quality* report published by the Higher Education Council (HEC) (1992), graduates develop attributes that are transferrable across contexts through study within a specific discipline or field. More recently, Bowden, Hart, King, Trigwell, and Watts (2000) describe GA as the skills, qualities, attitudes, abilities and understandings beyond disciplinary-specific knowledge that should be developed by all graduates during their time at university and are applicable across a range of contexts. Likewise, Bryans and Smith (2000) suggest the GA are skills that enable a person to work efficiently and effectively in the workplace, and which can also be transferred from one work situation to another. Barrie (2004) argues that there is a clear distinction between skills and attributes, with the latter more global in conceptualisation. Similarly, Bowden et al. (2000) suggest that the GA enable graduates to be agents for social good into the future. The acquisition of the GA, then, is a vital component of the overall learning achieved by students in the clinical or field placements.

Internationally, the impetus for higher education to progress attainment of the GA is gaining momentum, driven by government, industry, educational institutions and also students (Bath, Smith, Stein, & Swan, 2004; HEC, 1992; Yorke & Harvey, 2005). It is not surprising then, that some agreement has been realised in relation to the key GA, including the capacity of the student to commit to life-long learning and demonstrate effective communication skills (HEC, 1992; Yorke & Harvey, 2004). In short, students seek to be employed upon graduation, industry and professional bodies require capable graduates, and universities aim to mould a successful product – viz., the graduate. As

noted by Yorke and Harvey (2005), employers in the UK are now demanding that graduates possess an ever increasing standard and range of attributes. As such, the employability of university graduates is directly related to their achievement and demonstration of the GA. Locally, renewed focus on the GA is further promoted by government initiatives such as the Course Experience Questionnaire (CEQ) and Australian Universities Quality Agency (AUQA) systems, which aim to measure the students' achievement of the GA, in addition to other aspects of learning (Bath et al., 2004).

Even so, the achievement of discipline-specific skills is perhaps more easily identified and critiqued by assessors / clinicians / facilitators / supervisors, than the poorly defined but essential elements of the GA (Cassidy, 2009b; Dolan, 2003; McCarthy & Murphy, 2008; Neary, 2001). Indeed, it is argued extensively in the health literature that the assessment of competence in relation to attitudes and professionalism is notoriously challenging (Bath et al., 2004; Cassidy, 2009a; Morris, 2006; Pender & de Looy, 2004). In fact, Seymour, Kinn, and Sutherland (2003) question whether such skills can ever be taught or assessed, taking the view that knowledge is created by people in combination with one another – that is, it is a function of personal interaction, and not the possession of individual skills (Seymour, Kinn, & Sutherland, 2003). Others again suggest that an individual may acquire generic skills, but they will only utilise them effectively when working with mutually supportive team members (Ingham & Ingham, 2010). This raises questions about how academics and industry alike can provide a mutually supportive team environment when the students are placed in an environment on a temporary basis, and how equitable it is to assess student achievement of GA if they are learning in an unsupportive clinical or field environment.

In summary, assessment of WIL for students in health-related professions must involve ongoing achievement of the discipline-specific skills and also the GA. Both processes are complex, suggesting the need for focussed attention. One way of meeting the challenges involved is through inter-disciplinary and inter-professional collaboration. By working together, each of the professions can learn from the other, tapping into the differing perspectives generated and also the progress one profession may have made in the area. The project described in this paper provided an excellent forum by which such collaboration and cross-fertilisation was achieved.

Aim and Methodological Approach

The aim of the project was to begin the process for the Faculty of Health, University of Canberra, to address issues identified anecdotally and in the literature around the assessment of WIL. It was anticipated that the project would include the development of principles to guide an effective inter-disciplinary, Faculty-wide assessment framework, and also to enable sustained improvement in student learning of the discipline-specific technical skills and the GA. These principles would be generated from results derived from an analysis of Faculty documentation and of formal discussions between students, industry representative and academics in relation to needs and requirements of assessment of WIL. It was anticipated that the principles would ideally consider mechanisms for industry and academics to 'feed-forward' to students – that is, to inform, educate and prepare the student prior to the clinical or field placement taking place – and as well as feedback observations and other information to students during and after the placement about their practice.

It was also proposed that the project would provide a forum to improve ongoing relationships between all stakeholders. This would include interdisciplinary engagement, collaboration and cross-fertilisation through ongoing co-operation between academics from across the Faculty to achieve the desired outcomes of the project. Further, the project aimed to improve engagement between students, academics, and industry stakeholders through a challenging of traditional understandings of WIL assessment, the development of more consistent and meaningful assessment practices, the development and cementing of relationships with industry partners, and the promotion of a common approach to WIL and its assessment.

In light of the complex nature of WIL assessment in the health-related professions, the project utilised a mix of methods to obtain data. This included quasi-empirical and qualitative approaches, comprising formal meetings with and feedback from key representatives from academic, industry and students bodies, a quantitative analysis of the WIL-related documentation provided to industry and students by the University, and a thematic analysis of interviews with managers, clinicians, and students. The project was viewed as a low risk ethically, and approval was obtained from the Research Ethics Committee.

To commence the process of data collection, a formalised consultation forum was implemented in the form of a Project Advisory Group (PAG). The PAG met regularly, and worked to provide advice and feedback to the Project Team regarding the processes involved. Following this, a series of inter-disciplinary and inter-professional focus group discussions was facilitated, and analysed to identify major preoccupations or concerns. Finally, a comprehensive mapping exercise was undertaken to evaluate the assessment processes already in place across the Faculty.

Results

A fertile range of data was generated by the research, with the information providing multiple perspectives of current WIL and associated assessment processes. Subsequent analysis of these differing perspectives identified similarities and trends, including the existence of Faculty-wide inconsistencies in a number of the processes involved with WIL and its assessment.

Project Advisory Group (PAG)

The PAG comprised representatives from industry, academia, and the study body. This included employers, managers and practitioners, current and graduate students, and academics from across the disciplines in the Faculty of Health and also from other Faculties within the University of Canberra. An external academic representative with experience in the research of WIL was also involved. The Terms of Reference of the PAG ensured that ongoing and specific information was provided to the Project Team about WIL, including current assessment processes, desired assessment outcomes, and project deliverables.

A major outcome of the PAG was the formalised forum it provided and continues to provide, to enable inter-professional co-operation and cross-fertilisation. For example, through the PAG, stakeholders from across the disciplines were informed of the standardised national assessment framework used by registered pharmacists who work in hospitals to ensure consistency across all jurisdictions. The sharing of current practices and ideas enabled participants to draw upon previous work undertaken across the disciplines on the assessment of WIL and adapt this information to their own specialties. Additionally, the PAG forum facilitated the sharing of common concerns by participants around the national registration of health professionals and its potential impact upon WIL assessment; the desire for a consistent, national curriculum for each of the professions; and the need to develop more effective processes and tools around the generic workplace skills, including the GA.

Focus Groups

Practitioners, managers, associated project workers, employers, students and academics from across the disciplines were engaged to participate in formal Focus Group discussions about the assessment of WIL, including existing practices, challenges, and ways and means of achieving improvement. These discussions were analysed thematically. For academics and industry representatives, the themes generated included concerns around the quality of the assessments, the difficulty in ensuring inter-rater reliability, and the challenges involved in supervising and supporting students who required assistance with the GA.

The following extract typifies a number of the comments made during the discussion in relation to the GA and also processes of communication between all stakeholders:

[The student] kept arriving late. I'd try to explain how important it is to get to work on time, but he didn't seem to care. He'd tell me the bus doesn't arrive until twenty past. I said, catch the earlier bus then. He'd say, I'm not paid to do this, why should I? I couldn't believe the attitude! But attitude isn't assessed, he was fine clinically, so I felt really powerless. I didn't know what to say or how to say it. I mean, what kind of employee is he going to make? But there was no process in place to make it easy for me to give that kind of feedback (Supervising Practitioner).

I don't know how many times I have to tell them to read the [on-line student site] because all the information is there. I don't know how many times I have to tell the staff 'This is what the expectations are' and 'This is what you do need to do with the students'. But I still get told that no-one knows, no-one is told, no-one understands what is going on. It makes me look like I'm not doing my job. I don't know what else I can humanly do (Supervising Academic).

Industry representatives and academics alike expressed feelings of helplessness when it came to giving feedback to students to actively support their learning.

The common student contributions highlighted a lack of understanding of or clarity around what was required for clinical or field placements, and inconsistencies related to the processes involved with WIL, especially assessment. Generally, with no standardisation of expectations or learning processes either within or across the disciplines, within the workplace or between workplaces, the students expressed feelings of confusion and frustration and that this impacted upon their learning. The following extracts exemplify comment around inconsistencies in WIL processes, and also breakdown in communication processes between all stakeholders:

I go to one ward, and the academic supervisor will have one way of doing things, the nurse preceptor for one shift has another way of doing things, and then a different nurse preceptor the next shift I work, she has another way again. Then they say to us, you know where to find the information, take some responsibility, but it seems to be in a different place every time, and everyone has a different story. It's all so confusing! I'm trying to learn, I shouldn't have to fight to get information! (Student X)

No-one really explained anything to us. It was like we were expected to know. They'd give us the competency standards and tell us, just ask if you have any issues with them. But [the competency standards] are so abstract and full of jargon, I didn't understand them and I didn't know where to start trying to understand them either, and who am I to have issues with the national competency standards anyway? I'm just a student! I didn't want to seem stupid or full-of-it, so I kept quiet. Then I'd get out there and the [workplace supervisor] would say 'So what are you allowed to do?' How was I supposed to know? I didn't understand the standards – and it seemed to me like they didn't either, even though they're the professionals! So we'd all blunder around. Sometimes you'd get a really good [workplace supervisor] who seemed to know what they were doing and really like students and you'd really learn a lot, but mostly it all seemed pretty 'how ya going' to me. (Graduate Y).

Such feedback for students is also invaluable for the way it enables identification of major areas of frustration and need for students. Significantly, a number of students observed that many academics and industry representatives seemed to lack the ability to communicate, access and provide information, problem-solve, and work with others – the very GA that academic and industry representatives saw as likewise lacking in students. This situation suggests a need for all stakeholders to self-reflect in these areas, and identify ways of improving role-modelling and also processes of communication.

WIL assessment documentation mapping

To identify the processes utilised by the disciplines across the Faculty of Health, and the influence of these processes upon the assessment of students in the workplace, an analysis was undertaken of the Faculty-wide and also discipline-specific Clinical/Field Placement Handbook, and relevant Unit Outlines. These documents are provided to all students undertaking clinical and field placement, and include an outline of the related processes, and the learning outcomes and assessment items for the Unit to which the WIL is attached. Mapping tools to audit these documents were generated from a comprehensive review of the literature related to the assessment of WIL and from feedback received from PAG meetings and Focus Group discussions. The tools were trialed and revised prior to formal utilisation.

Table 1: University of Canberra Faculty of Health WIL Mapping Tool

Preparing the student for a work placement: Does the document:	Assessment Practices: Does the document:
1. Refer students to the Faculty Clinical Placement Book?	13. Specify how the assessment of the formative learning will be undertaken?
2. Refer students to the discipline –specific Guidelines Book for WIL?	14. Specify how the assessment of the summative learning will be undertaken?
3. Refer students to the discipline-specific [on-line student site] for WIL?	15. Refer to an attachment or other document that explains the assessment processes?
4. Refer students to a relevant preparation Workshop?	16. Identify who will be conducting the assessment?
5. Provide pre-placement Guidelines?	17. Identify the time line for the assessment?
6. Outline workplace requirements?	18. Identify the assessment tool(s) that will be used?
7. Outline academic expectations?	19. Explain clearly the assessment criteria that will be use?
Expectations of Workplace Learning: Does the document:	20. Explain practices that are benchmarked against other Faculties and Universities?
8. Specify the discipline-specific knowledge that needs to be learned/demonstrated in the workplace?	Support Mechanisms in the Workplace: Does the document:
9. Specify the discipline-specific skills that should be learned/demonstrated in the workplace?	21. Outline the principles for self-directed learning that students may utilise in the workplace?
10. Specify the discipline-specific attitudes that need to be learned / demonstrated in the workplace?	22. Specify support that is available for students in the workplace?
11. Identify clearly the generic skills that will be required and utilised in the workplace?	23. Make clear the procedures that will be followed in the case of ‘under-performance’?
12. Identify clearly industry expectations for learning by the student in the workplace?	

An example of one of the mapping tools is provided in Table 1. This tool comprises 4 major criteria: preparing the student for the workplace, expectations of workplace learning, assessment practices, support mechanisms in the workplace. These 4 criteria comprised 23 subsets detailing these criteria, with each utilised to measure the provision of information in the Unit Outline to students prior to commencing their clinical or field placement. The questions required Yes/No answers only.

Interestingly, overall results of the mapping exercise demonstrated concordance with the analysis findings from the PAG meetings and Focus Group discussions by exposing inconsistent processes. Three areas in particular were highlighted. Firstly, there was evidence that disciplines across the Faculty were not providing written information to students about industry expectations in relation to

clinical or field placements. Secondly, the process of WIL assessment was not clear to students. Finally the support mechanisms were available to assist students during WIL were not clearly documented. Further, the results suggested that each of the disciplines was placing more emphasis upon the processes or tasks students are required to complete or fulfil prior to commencing clinical or field placement, rather than upon the process of learning and assessment once the student entered the workplace. In short, analysis of the documentation suggested that the Faculty has been privileging bureaucratic processes over learning and assessment processes in relation to WIL.

Specifically, and in relation to the 23 criteria identified in Table 1, each of the documents mapped or audited was given a concordance score. For example, in the Faculty of Health, in which there are 7 disciplines, only 3 provided discipline specific Clinical/Field Placement Handbooks. Each of these 3 Handbooks scored a low concordance across all criteria. One possible reason for this is because the disciplines may rely heavily upon relevant Unit Outlines to communicate information about WIL, and so the lack of information in the Handbooks is not an issue. This suggests a need to identify the purpose of the Handbooks.

Mapping was also undertaken of the relevant Unit Outlines, which are provided to all students and comprise information on the processes to be followed to achieve the designated learning outcomes. From the 7 disciplines, a total of 30 Unit Outlines were evaluated (Figure 1).

Figure 1: Number of Unit Outlines Reviewed per Discipline

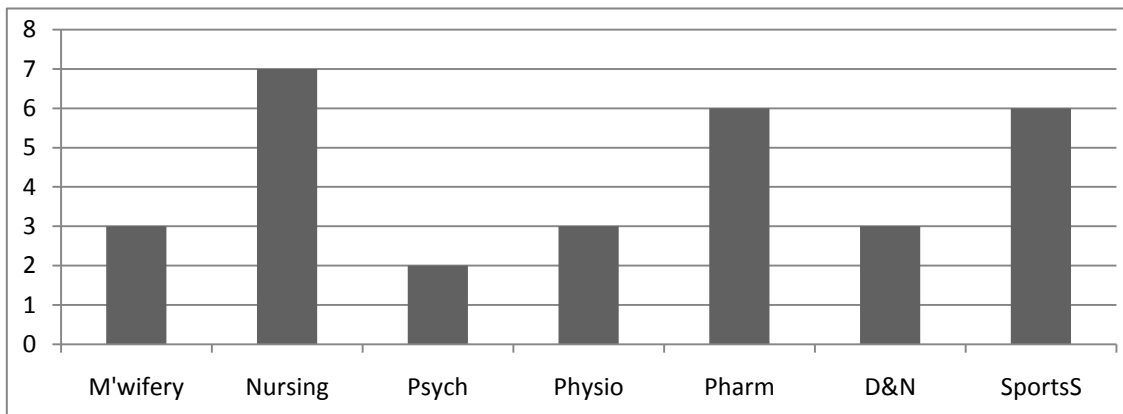
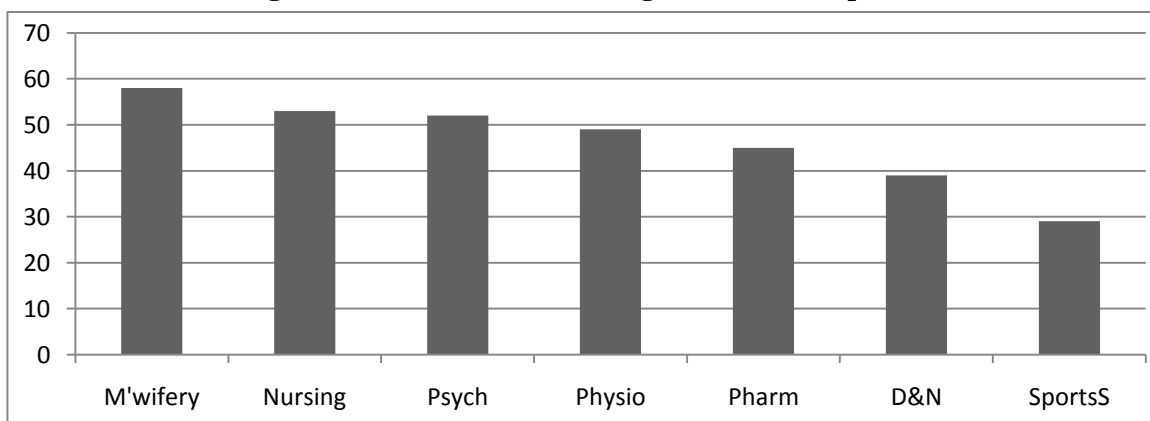


Figure2: Concordance Percentage between Disciplines



After scoring each of the Unit Outlines for concordance, then using a weighted score to factor for unequal sample size, it was found that the Disciplines of Nursing and Midwifery had the greatest concordance (see Figure 2). However, there was no significant difference ($p > 0.5$) between the disciplines if the Sports Science Unit Outlines were excluded. One possible reason for the higher concordance scores of the remaining disciplines may be their longer history with the Faculty of Health and, as such, longer experience in developing WIL processes. Even so, with the highest percentage of

concordance just over 50%, the need for a review of the information provided by all disciplines across the Faculty was deemed by the project team as desirable.

A further breakdown of the results also provided rich information for consideration. For example, 3 of the 23 criteria scored 100% across all Unit Outlines. Specifically, all 30 Unit Outlines referred students to the relevant online student learning site, described the time lines for assessment, and articulated processes that would be followed if students under-performed (Table 2). However, none of the Unit Outlines across the Faculty described or even mentioned industry expectations for the students, nor explained how the WIL practices undertaken are benchmarked against other courses, Faculties, or Universities. Additionally, more emphasis was placed by the Faculty upon knowledge and skills, rather than areas such as attitudes, support provided in the workplace, or workplace requirements. References or explanations of formative and summative assessment also scored comparatively very low.

Table 2: Ranking of Most Common Criteria

Criteria 'Key'	Raw Scores	Ranking of most common criteria	Rank
Preparing Students for Work Placement	30	Online student site	1
1 Faculty WIL Book	30	Time line	1
2 Discipline-Specific Handbook	30	Underperformance	1
3 Online student site	28	Academic expectations	2
4 Prep workshop	24	Identifies assessor	3
5 Pre-placement guidelines	24	Assessment criteria	3
6 Workplace requirements	23	Knowledge	4
7 Academic expectations	21	Skills	5
Expectations of Workplace Learning	19	Assessment tools	6
8 Knowledge	14	Faculty WIL Book	7
9 Skills	13	Generic skills	8
10 Attitudes	12	Pre-placement guidelines	9
11 Generic skills	12	Attitudes	9
12 Industry expectations	10	Explains assessment process	10
Assessment Practices	9	Support in workplace	11
13 Formative learning assessment	7	Workplace requirements	12
14 Summative learning assessment	6	Discipline-Specific Handbook	13
15 Explains assessment process	4	Self-Dir. Learning Packages	14
16 Identifies assessor	3	Prep workshop	15
17 Time line	2	Formative learning assessment	16
18 Assessment tools	1	Summative learning assessment	17
19 Assessment criteria	0	Industry expectations	n/a
20 Benchmarked against others	0	Benchmarked against others	n/a
Support Mechanisms in the Workplace			
21 Self-Dir. Learning Packages			
22 Support in workplace			
23 Underperformance			

Discussion

The project generated findings that were significant to the Faculty, and enabled the team to develop recommendations for change. A number of these recommendations were related to the conduct of the project itself, while others were related to way in which WIL is undertaken and assessed across the Faculty.

With regard to the project, weaknesses were identified in relation to the mapping tools and also the way in which they were utilised. In short, based upon findings of the thematic analysis of the Focus Group discussion, it would be determined that future use of the mapping tools would include an audit of information provided, including information about the processes involved, about giving and receiving feedback to students, academics, and industry stakeholders. In addition, a determination was made that future use of the mapping tools would include at least two auditors. This would allow cross-checking, address any oversights in the process, and facilitate greater quality in the findings. Further work could also be done on the mapping tools, with utilisation in other Faculties or institutions, to enable refinement and validation.

With regard to the way in which WIL is undertaken and assessed across the Faculty of Health, findings of the analysis of the Focus Group discussions and mapping exercise are important for a number of reasons. Firstly, they provided the evidence to guide development of recommendations for a framework or set of principles aimed at addressing issues related to WIL, including assessment processes, across the Faculty of Health. These principles are outlined in Table 3, and recommend a mandating of the provision of written information to students, industry, and all academics, about preparation for experiences of WIL, expectations of the workplace, specificities of assessment process, and support mechanisms available to students and supervising industry stakeholders in the workplace. Table 4 provides an outline of the information required for the Unit Outlines. It was proposed by the team that the implementation of these principles would enable consistency across the Faculty in the processes related to WIL. It was also proposed that the provision of this information, together with ongoing education around the processes involved, would facilitate an improved engagement between all stakeholders.

Table 3: Principles to Guide Faculty Wide WIL Framework

The 'mapping assessment processes' WIL project team recommends that the following principles be used to inform development of a Faculty-wide WIL Framework:

Mandatory provision of discipline-specific Clinical/Field Placement Handbooks, to be provided to all relevant students, industry stakeholders, and academics;

Mandatory inclusion of the identified information related to WIL, including assessment (see Table 4), in all discipline-specific Clinical/Field Placement Handbooks;

Mandatory inclusion of summary of the identified information related to WIL, including assessment (see Table 4), or references to where this information may be found, in all WIL-related Unit Outlines;

Provision of preparatory workshops or orientation sessions to all students prior to workplace experiences;

Ongoing oversight and evaluation of these processes is to be provided to the Associate Dean of Education, Faculty of Health, or delegate.

The second reason the findings of the project are significant is for the baseline information they provide. This information will enable meaningful measurement of the effectiveness of the implementation of a Faculty-wide framework. In turn, this implies the need for another, similar project in the future, subsequent to the implementation of the recommendations, and on-going evaluation to ensure continuous quality improvement.

Table 4: Mandatory Inclusions of WIL-related information into all Unit Outlines

Information to Prepare Students for Work Placement:

Reference to Faculty Clinical/Field Placement Handbook

Reference to discipline-specific Clinical/Field Placement Handbook

Reference to online student site(s)

Reference to preparatory workshop or clinical/field placement orientation sessions

Outline of pre-placement guidelines

Outline of workplace requirements

Outline of academic expectations in relation to clinical/field placement

Expectations of Workplace Learning

Outline of knowledge required for the clinical/field placement

Identification of skills required for the clinical/field placement

Identification of the attitudes desired by employees

Reference to or explanation of the GA

Reference to or explanation of industry expectations, after consultation with industry

Assessment Practices

Explanation of formative (or equivalent) learning assessment

Explanation of summative (or equivalent) learning assessment

Full explanation of WIL assessment process in the Unit, or reference to where this may be found

Identification of who will be undertaking the WIL assessment

An indication of the timing of the WIL placement

An explanation of the WIL assessment tools that will be utilised, including the assessment criteria

Explanation of how the WIL assessment is benchmarked against other students

Explanation of how the WIL assessment is benchmarked against other Universities

Support Mechanisms in the Workplace

Reference to a relevant self-directed learning package to support students in t

Explanation of support for students in workplace

Explanation of communication processes to be followed to feedback to academics

Explanation of communication processes to be followed to feedback to industry

Explanation of processes that will be followed if student is underperforming

Thirdly, the findings are meaningful for the questions they raise for educators and researchers who are committed to supporting and improving WIL for students. Perhaps the most significant of these questions relates to evidence of the low priority given to explaining the GA in the Faculty of Health documentation, which is in conflict with the PAG and Focus Groups findings that GA, in particular professional attitudes, are integral to student WIL development. Biggs and Tang (2007) likewise note the importance of the GA in the workplace, and argue the need for students and assessors alike to understand this importance to enable a transparent assessment of these skills. Clearly, this is an area requiring development for all disciplines of the Faculty.

Hand-in-hand with these findings were the deficits identified in relation to the feeding-forward to students about industry or workplace expectations. PAG and Focus Group discussions highlighted the importance placed by industry upon the provision of this information to students, however findings from the mapping exercise suggested that such provision is not occurring across the disciplines. Implementation of the Faculty of Health WIL framework, based upon the recommendations made above, would assist in addressing this deficit, and enable greater emphasis upon industry expectations, particularly in relation to demonstrating the GA in the workplace.

Finally, the findings demonstrate the advantages of cross-disciplinary and inter-professional co-operation. Stone (2010) identifies the benefits of inter-professional learning and collaboration in the health context as improved patient safety, worker satisfaction, and health service efficiency. In the university-context, the benefits of collaboration and cross-fertilisation of the health-disciplines were demonstrated through the successful completion of the project, and suggested the potential to include sustained improvement in student satisfaction and outcomes in relation to WIL, and more efficient and effective assessment processes. The project also enabled academics to critically analyse their own work, the work of their disciplines, and the work being carried out by other disciplines. Undergoing critical evaluation by peers can be a confronting process, however the project enabled this in a safe, constructive and collegial environment. In turn, the new knowledge and practices that were developed were made available to other Faculties across the University in which students undertake WIL, and also to academics in other institutions.

Conclusion

This paper reports findings of a project that mapped workplace assessment practices across 7 health-related disciplines in a University of Canberra. Results of the project identified a number of inconsistencies in processes related to assessment, including deficits in the information provided to student and industry representation, across the disciplines. In particular, it was found that stakeholders were not provided with balanced levels of information about industry expectations; and more emphasis was being placed upon knowledge and skills by all the disciplines, than upon professional attitudes and workplace requirements. This finding in itself is interesting in light of the need expressed by academic, industry, and student representative alike for the provision of greater support and information in relation to professional attitudes and workplace requirements. By subject documentation to close analysis, areas for development were clearly identified. This, in turn, provides an important focus for academics at the University of Canberra for substantial improvement.

Another outcome of the project was the enhancement of communication between the stakeholders, leading to the development and cementing of relationships between the Faculty and industry representatives, academics and students. In particular, the Project provided an excellent example of the power of inter-disciplinary and inter-professional co-operation. By working together and openly sharing information, all those involved were able to build upon their knowledge in a meaningful way. It was demonstrated that this was beneficial for all stakeholders, including the Faculty as a whole.

Finally, based upon the findings, recommendations were made for a Faculty-wide framework aimed at standardising and improving WIL assessment processes. The mapping tool, as an inter-disciplinary construction, is applicable across the discipline, and encompasses the essence of what is required to support WIL. The new knowledge and practices generated has been made available to other Faculties across the University in which students undertake WIL. There is also the potential for it to be utilised in other institutions, with great effect.

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Work Integrated Learning partnerships: Key messages from host organisations

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Background: This paper explores the key messages for tertiary institutions arising out of research conducted by Victoria University with 58 organisations which host higher education and vocational education students engaged in different types of WIL activities. The sample included organisations of different sizes, across different industries and sectors (for-profit, non-profit and government).

Aims: The study sought to improve understandings of host organisations' perceptions and experience of WIL to assist in extending and improving tertiary institutions' WIL programs and their outcomes. It focused on the benefits that host organisations' perceive as flowing from hosting students, perceptions of the challenges and issues associated with WIL, the quality of communication with tertiary institutions and the support received and desired from institutions.

Method : The study employed a qualitative methodology involving face to face and telephone interviews which were transcribed and coded using NVivo software. The data was then analysed using a content analysis approach.

Discussion: Although this study confirmed some findings from previous research in relation to benefits from hosting students and issues and challenges and communication preferences, it provides a more nuanced understanding of the host organisation experience. There were also a number of themes which emerged in the course of the study of interest including: the use of WIL models, approaches to student learning and the nature of host organisations' relationships with tertiary institutions.

Conclusions: This paper focuses in particular on the implications of the findings for building, maintaining and expanding partnerships that will enhance the student learning experience and lead to mutual benefits for host organisations and tertiary institutions. The research highlights the importance for partnerships of communication strategies that foreground negotiation with host organisations based on an understanding of the potential benefits, likely constraints and support needs. An important aspect of good communication is providing opportunities for feedback, evaluation and input into course design. One outcome of the increased emphasis by tertiary institutions on WIL is competition for limited host organisation opportunities. This paper will suggest ways in which tertiary institutions can support organisations to expand their capacity to host students.

Keywords: Work integrated learning; partnerships; host organisations; employers.

Introduction

There is increasing interest in expanding Work Integrated Learning (WIL) provision in the tertiary sector in Australia due to several factors, including a greater emphasis on employability skills by government and industry and a growing belief in the pedagogical value of the learning that can take place in the workplace. Increased demand for WIL places greater attention on tertiary institutions' relationships with organisations that provide, or could potentially provide, WIL experiences for students and on how those relationships are managed and supported.

This paper emerges out of a large Victoria University (VU) study, *Understanding the host organisation perspective on LiWC*, which focuses on the perceptions and experiences of organisations that host students. This focus resulted in placements being the predominant model in the sample, although some interesting uses of the project model emerged out of the findings. This paper focuses in particular on key messages for tertiary institutions in relation to effective partnership formation and management that will support hosts in providing quality learning experiences for students and expand WIL opportunities.⁵

⁵ At VU WIL is referred to as Learning in the Workplace and Community (LiWC).

Background

The study on which this paper is based was commissioned to develop a better understanding of the experiences and perceptions of host organisations across industry clusters⁶, education sectors, industry sectors (for-profit, non-profit or government) WIL models and organisations that host students from a range of tertiary institutions. The purpose of this broad-based study was to assist in extending and improving tertiary institutions' WIL programs and their outcomes. The research questions focused on the benefits that host organisations perceive as flowing from hosting students, perceptions of the challenges and issues associated with WIL, the quality of communication with tertiary institutions and the support received and desired from institutions. Hosts' responses provided valuable information and insights into the way they view their relationships with tertiary institutions.

Interviews were conducted with 58 organisations which host higher education and vocational education students engaged in different types of WIL activities. The sample included organisations of different sizes, from different industries and sectors (for-profit, non-profit and government) although a representative sample by industry cluster was not achieved.⁷ Although not included in the criteria for the sample, the following WIL models had been used by at least some participants: placements, projects, traineeships and apprenticeships and work-based learning.⁸ Placements were by far the most commonly used model in the sample, with nearly three-quarters of participants indicating that this model had been used in an organisation in which they had been employed. As to the educational sector that host organisations were involved with, slightly more than a third of the organisations reported hosting higher education (HE) students and just a few reported only hosting vocational education (VE) students. Slightly less than half had hosted both VE and HE students.

Key messages

The literature in relation to WIL and partnerships highlights the importance of shared understandings, good co-ordination and communication and monitoring mechanisms, as well as drawing attention to both the benefits and costs of participating in WIL activities from the perspective of host organisations (Patrick et al 2009; Harvey et al, 1998; Reeve, 2001). While this study confirmed many of these broad findings, it also provided a more nuanced understanding of the perspectives and experiences of host organisations. Some key messages for tertiary institutions in forming and maintaining partnerships for WIL have been distilled from the findings and are discussed in this paper.

Key message 1: Benefits are important

Although the literature shows that hosts generally benefit from their participation in WIL programs, the study confirmed this and, in addition, highlighted that they expect to do so. Research suggests that although the benefits may vary according to the WIL model there are some fairly common benefits to be gained such as:

- the recruitment potential
- access to extra workers at low cost to the organization
- staff development for existing staff
- the introduction of new ideas into the workplace (Harvey et al, 1998, Braunstein & Loken, 2004, Orrell 2009).

⁶ Victoria University's courses, both higher education and vocational education, have been organised into 12 industry and community clusters: Cultural & Creative, Education & Transition, Engineering & Infrastructure, Financial & Economic Services, Health, Human Services, Information & Communications Technology, Law & Legal Services, Management & Marketing, Sports & Recreation, Tourism & Hospitality and Transport & Logistics.

⁷ The sample included organisations from all 12 industry clusters although equal representation was not achieved. Just over half the sample were participants from organisations from Education & Transition, Health, and Engineering & Infrastructure clusters.

⁸ Placement is used to denote any activity where students worked on site at the workplace for a defined period of time related to their area of study. Project variants of WIL were defined as students doing a specific project for a workplace that they were not necessarily located in. Work-based learning refers to workers undertaking a learning program to assist them to train for their current or future role in the workplace which is not a formal traineeship or apprenticeship.

In fact, benefits are built in to some forms of WIL. For example, in the cooperative education model where students are effectively paid employees, the benefits often are those inherent to the employer/employee relationship and also the potential in the longer term for recruitment.

In this study where short term placements were the most common form of WIL, the most frequently cited benefit related to access to student skills, attributes and knowledge, followed by recruitment and professional development:

I think it's really critical to have fresh ideas, new faces...currency of practice come into the workplace (Human Services).

It's a very good way to recruit future engineers. They get to understand what they're doing here and I would say 90% of the time students who work here actually apply to join us after they finish (Engineering & Infrastructure).

Those younger people as mentors, as reverse mentors...being able to bring others up to speed (Sport & Recreation).

The findings, however, highlighted that the types of benefits hosts accrue might differ according to their organisational status (non-profit, profit or government). Predictably, participants from the for-profit and government sectors more frequently cited recruitment as a benefit than those from non-profit or smaller organisations, whereas those in smaller and non-profit organisations more frequently identified access to student skills and knowledge as benefits. Some differences were evident in industry clusters with participants in health and education and transition more frequently than those in other industry clusters explaining their participation on the grounds of professional responsibility rather than as something that they do for direct organisational benefits.

This study also found that some organisations articulated indirect benefits from participation such as improving the organisation's profile within tertiary institutions or the community and developing relationships with tertiary institutions which could, for example, result in access to services or research partnerships. Additionally, a very small number of participants cited social or personal responsibility as the motivation for hosting students.

Interestingly, some organisations in the sample indicated a clear preference for longer term placements on the basis that these offered more benefits than shorter ones. Longer placements meant that there was a greater return on the time invested in inducting and training students for the role.

On the flip side of benefits, in response to a question inviting them to discuss issues and challenges, slightly over half of the participants raised resources as an issue, but only a small number viewed resources or cost of participation as a significant barrier or a potential disincentive for further involvement. Given that a lot of the research into host organisations' involvement in WIL has looked at perceptions of costs and found resources to be an issue it was not surprising that they would also emerge as a strong concern in this study (Reeve, 2001). As one commented:

But of course money is a big thing with these students because [it] costs money. We don't have that money (Health).

Bringing the question of benefits and costs upfront in our communication with hosts, especially in the negotiation and set-up phase, and carefully designing activities which are mutually beneficial is important. It needs to be acknowledged that while it does cost organisations to be involved in hosting WIL students there are also clear benefits for them when the WIL experience is successful in meeting their goals. Therefore, understanding host organisations' motivations for participation and what they expect to gain is the key to understanding how they are likely to judge the outcomes of participation in

WIL programs. Ensuring that hosts are informed about, and have access to, a wider set of potential benefits offered by a broader partnership with tertiary institutions is important in mitigating possible dissatisfaction with the outcomes of individual WIL experiences. Monitoring whether they are accruing the benefits they are seeking and providing support throughout the WIL activity are also important.

Overall these findings suggest that tertiary institutions need to focus on:

- understanding why their partners want to be involved in WIL
- negotiating arrangements and models with hosts to ensure benefits
- promoting a range of potential benefits including indirect benefits arising from involvement (such as improving the organisation's profile and access to services and research partnerships)
- monitoring WIL activities and partnerships to ensure that host organisations accrue the benefits they seek.

Key message 2: Good communication and internal co-ordination are hallmarks of successful WIL

Good communication is a feature of any successful partnership and is well highlighted in the literature (Varty 1991; Kellett & Goldstein 1999). The importance of good communication and the need for tertiary institutions to better co-ordinate what they do emerged from this study. Although over half of the participants who responded to a question regarding the quality of communication were generally satisfied with the communication they had with their partner tertiary institutions, many were also readily able to suggest improvements. The strongest critics were fairly blunt about the fact that there was a complete lack of communication:

Look they don't communicate with us at all in a general sense (Cultural & Creative Industries).

We don't have enough contact really, is basically it (Transport & Logistics).

On the whole the study showed that participants didn't want either too much or too little communication and that the right amount could vary according to the host organisations' circumstances, WIL model and stage of the relationship. Some expressed the wish for minimal communication. This study suggested that communication was especially critical when issues arose in relation to student performance or arrangements.

A number of participants cited the importance of visits for the host, although some tempered this by stating that they understand that the resourcing of WIL in tertiary institutions has declined. Generally, visits were viewed favourably as signs of commitment to making the WIL process work and to supporting the student. As one participant stated:

I think certainly a personal visit would be important so that you have an opportunity to meet and have a brief discussion with the university personnel...rather than just being at the end of a telephone...it's important that they are visible and available for the student doing the practicum (Education & Transition).

There appears to be scope for improvement in communication around the negotiation and set-up of WIL experiences. Some hosts commented that they would like a bit more advance information in relation to the goals of the placement, while some others pointed to timeliness and flexibility in arrangements as issues. In the words of one:

It would be beneficial if there was some negotiation around how placements can occur, what we can actually provide and how that fits in with the workplace because it is challenging. There is an expectation that all workplaces will provide student placements but you have to counter that with what

you can actually do and sometimes it's more achievable if we can negotiate the parameters of that so...timing, whether it's the time of year, whether it's the days of the week, whether it's the length of the days or the number of the days, those sorts of things (Health).

Communication and an understanding of, and capacity to respond to, the circumstances and needs of each host organisation are thus key features of successful WIL partnerships.

The study also showed that communication around hosts' support needs could be improved. Although some hosts were quick to identify the need for greater financial support and to explain how they would use it to improve the WIL experience, others drew attention to a wide range of different types of support that had been, or could be, provided by tertiary institutions, showing that good support is not just about money. Examples include: assistance with research, staff exchanges, library access, scholarships and honorary appointments. Thus good initial communication about the host's circumstances could involve a creative exploration of a range of avenues of support based on their needs and what tertiary institutions can offer.

Another issue which emerged in this study and which was noted in the literature relating to WIL and communication is the issue of the lack of a co-ordinated and customer service oriented approach to industry. This relates not so much to how individual program areas organise WIL but how tertiary institutions support this at a whole of organisation level. This was a theme in The WIL Report (Patrick et al, 2009:29). It was also observed by some participants in this study that tertiary institutions do this very poorly. In order to expand host involvement in WIL, tertiary institutions need to ensure their ease of access to the different opportunities an institution can provide and support them, rather than leaving them to navigate their own way through the organisation to the appropriate staff member. One participant described the ideal situation from their perspective, as follows:

I do think the way that X University has set it up with a single person being the contact is ideal, then any issues you have, any new opportunities that you can offer can just go direct to the one person and then they negotiate with the university for you (Cultural & Creative Industries).

The other area of communication which this study revealed as lacking relates to feedback and evaluation. In this sample of organisations evaluation and feedback was rarely a formal component of WIL. While some participants felt they could provide feedback within the context of their relationships with tertiary institutions if they wanted to do so, others believed that they were in a position to provide valuable feedback that wasn't currently being requested and utilised. Clearly feedback is vital to ensuring that tertiary institutions continuously improve WIL programs and have the necessary information to address any concerns on the part of hosts. A participant involved in negotiating a partnership at the time of interview stated:

I would really be hopeful that the uni would ask us for feedback on how those internships went and whether it's cross feedback of how the program relates to the actual placement...or whether we found that the theoretical knowledge that the student came in with was suited to the role they were going into (Management & Marketing Services).

Although some participants were positive about giving feedback they tended to counterbalance this by expressing concerns about not wishing to incur too much extra work.

The findings from this study in relation to communication and co-ordination suggest the need for tertiary institutions to adopt a whole of tertiary institution approach that encompasses:

- developing co-ordinated and linked central and faculty level communication systems and processes
- providing timely information to hosts about WIL goals and expectations
- negotiating WIL activities and arrangements based on circumstances and needs of hosts

- establishing host organisations' preferences for amount and type of communication
- considering resource allocation in regards to visits
- addressing issues effectively and in a timely manner and following up to ensure satisfaction
- investigating other forms of support that can add value for host organisations
- developing strategies to collect host feedback and to involve hosts in evaluation.

Key message 3: WIL is not just about placements

Although the sample drawn for this project resulted in a large number of participants with experience in placements, particularly short term placements, and provided much information about this WIL approach, it demonstrates as highlighted in The WIL Report (Patrick et al, 2008) that WIL is more than just about placements. It also provided some useful insights that might assist in expanding WIL capacity. There were examples of hosts expressing a preference for longer term placements, some interesting uses of the project model and also of host organisations being involved in a variety of types of WIL such as placements, traineeships and projects, as well as examples where organisations were hosting students outside the industry cluster in which they were classified for the purposes of this study.

Approximately a third of all participants across industry clusters commented on the value to the host of longer placements. The reasons offered for this included not only the value to the host organisation as previously mentioned, but also the value to students or to both parties:

I mean you obviously have to invest quite a bit of time and effort in the initial stages, and unless you've got a longer relationship with the person, well they're not going to get much benefit out of it and neither are we so it's just not kind of worth the effort in the beginning (Information & Communications Technology).

It might be a research project where they have to send out information and research other service organisations and if they're only here for two weeks then what's the point (Education & Transition).

This finding has implications for tertiary institutions which in this climate may be likely to focus on maximising the number of possible WIL experiences. It suggests that tertiary institutions need to be flexible in their offerings and investigate what sorts of models and arrangements best suit different organisations. The fact that some participants also viewed longer term placements as being more beneficial for students suggests the need to further investigate the pedagogical outcomes for students of different models.

Although this sample did not elicit many instances of organisations employing the project model there were several examples which demonstrated interesting uses of this model across a range of disciplines and across different types of organisations and with both individual and groups of students. Some organisations had participated in a range of different types of projects such as research-based projects, sustainability studies, a virtual business study or some which had a product outcome. There was also one example that was difficult to categorise which involved a tertiary student working with a class of school students to develop a marketing idea, whilst concurrently delivering a graphic arts 'workshop' to them. Given that some participants viewed space and other resources like computers to be a constraint on hosting students, the project model may be a good solution for those organisations. The project model also offers opportunities for: short term discrete assignments, the solving of specific problems, multi-disciplinary projects and team-based WIL activities.

The findings suggest that the project model has the capacity to be used more widely and flexibly to expand WIL options for students and hosts. Some organisations, however, may need assistance in assessing the opportunities for developing useful projects within their organisation. However, this

study has also highlighted the problems that stem from expectations and outcomes for the project not being clearly negotiated and documented at the outset. An agreed process in the event that students don't achieve the intended outcomes should be discussed in the negotiation phase of the project.

The categorisation of host organisations by industry can give a misleading impression of their capacity to host students if it is assumed that the only students they can host are those from the assigned industry category. In this study two-thirds of the participants described their organisations providing placements for students across a range of disciplines often which cut across multiple industry clusters. As an example, within the education and transition cluster, ten of the thirteen participants described hosting students from a variety of external fields, including: Administration, Psychology, Architecture, Graphic Art, Multimedia and Sports Administration, and Science, as well as students from both HE and VE. Similarly, the study produced a couple of examples of small organisations hosting larger numbers of students than might have been predicted and of larger organisations with under-utilised capacity.

These findings suggest the need for tertiary institutions to:

- better promote different models of WIL and their benefits
- provide flexibility in types and arrangements of WIL
- facilitate host organisations access to multiple opportunities across disciplines
- explore the pedagogical outcomes of different WIL models.

Key message 4: Quality student learning doesn't occur by accident

WIL is intended to be a learning experience for students, one which synthesises theory (or classroom learning) and practice while giving them the opportunity to assess their career choice and suitability for it through direct exposure to the industry. Ultimately, although host organisations are partners in the WIL experience, responsibility for the quality of the learning experience, assessment and outcomes lies primarily with the tertiary institution and while some host organisations and their staff may be well placed to provide interesting and engaging WIL activities likely to enhance student learning, others may be less so.

According to the literature, it is important that all parties understand the intended learning outcomes for WIL activities (QAA, 2001). In this study some participants highlighted the importance of tertiary institutions providing clear expectations about what the WIL activity was designed to achieve, suggesting that tertiary institutions do not always do this. As one said:

It would be quite useful to...understand what the university is trying to achieve by these placements because I don't think that's always clear (Sport & Recreation).

This type of information was perceived to be necessary so that they could properly plan what students would be doing in their workplace. As one participant noted, 'It's basically just planning, pre-planning and everyone in the organisation understands it, what their role is, in one, helping the student, but how the student can also help them (Sport & Recreation).

In this study student-related issues emerged as the most common concern for host organisations with close to two-thirds of participants expressing these concerns in response to a question about issues and challenges they face. Issues of concern included: some students' lack of generic workplace skills, such as preparedness, attitude and communication, as well as their performance and tertiary institutions' management of these issues. This suggests that while many participants overall felt that they benefitted from accessing student skills and knowledge, this was often dependent on how individual students performed and how tertiary institutions responded to any concerns that were raised. The

findings also suggest the need for the careful design of WIL activities in a course so that they are timed appropriately and students are well prepared:

Their workplace readiness...their actual acumen for working in a large organisation...has been poor in some cases...understanding...of what is required business behaviour, punctuality, attendance, all those sorts of things (Management & Marketing Services)

With this particular university they hit the clinical setting after being at university for just one day so they were hitting the workplace having known nothing about midwifery at all and that was a huge impact on the midwives that were supporting those students (Health).

Given that tertiary institutions tout WIL as a way for students to develop generic skills they need to ensure that hosts understand that the main purpose of WIL is student learning and that students have different learning needs and capacities and some inevitably will require more host time than others. It is the responsibility of tertiary institutions to reinforce the message that the main purpose of WIL is student learning and this understanding needs to underpin the WIL relationship. Host organisations may need to be better prepared so they have realistic expectations about what students are capable of. Thus, hosts should be encouraged to see that a successful WIL partnership should not simply be measured by the performance of individual students.

On the other hand, it was encouraging to find that many host organisations demonstrated at least a basic understanding that WIL was intended to be a 'learning' rather than merely a 'work experience' for students, often demonstrating this by commenting on the need to give students real or meaningful work. This is exemplified by the following statement:

I'm a strong advocate for making sure that they get real experience here, real work experience not just photocopying and nonsense like that (Human Services).

Some also demonstrated this awareness by highlighting that students are given specific projects or a variety of experiences to provide them with exposure to different areas of the organisation. Implicit in this was an understanding that both these strategies were likely to engage students and be beneficial for their learning. For example:

Well we find it's best because a project has a beginning and an end and even if they're not here to the very end at least they can come back and they can actually see that they've completed some work ... we'll give them ongoing work but project work seems to work well because it's their project so there's a bit of ownership to it (Education & Transition).

Less commonly, some stated that they provide students with buddies or that they arrange for students to come on placement in pairs. Some participants expressed concerns regarding the suitability, preparation or training of supervisors thereby also demonstrating that they place importance on promoting student learning.

With respect to student assessment, most participants reported having been involved in the provision of feedback on students' performance at least for some forms of WIL⁹. A variety of approaches were reported depending on industry cluster and WIL models, including face-to-face or phone conversations with tertiary institution staff, reports and assessment forms or appraisals. Clearly in some areas such as health and education hosts have a role in assessing whether a student passes or fails. Significantly, the study highlighted that in these cases where assessment is a standard feature of

⁹ The data on assessment is somewhat limited as participants weren't asked a specific question in relation to assessment, however, many commented on it when responding to a question on feedback.

WIL some hosts felt that they could have received better support from tertiary institutions, for example in relation to non-performing students where the WIL activity formally counted towards assessment:

Finding support is often hard...if you're struggling with a student or whatever it's often difficult to get help and direction from the universities (Health).

In other areas where they reported providing feedback it was usually of a less formal nature. Although for the most part assessment was perceived to be unproblematic, a small number of participants expressed concern that approaches to assessment were not sufficiently rigorous:

I don't think it was that comprehensive and I think, as usual, the questions would be structured in a fashion that virtually dictated a positive outcome, anyone can pull together a survey that will dictate the outcome (Financial & Economic Services).

Given that WIL is seen as a key vehicle for developing students' generic and employability skills which emerged as an issue in this study and that the literature highlights the value of assessment for student learning (Boud, 2010), it seems clear that tertiary institutions could do more to encourage and support host organisations in providing authentic and not too onerous feedback directly to students on these skills, whether it is for grades or not. At least some of the value of such feedback lies in the fact that it offers students perspectives on their performance from 'real' employers in the 'real' workplace in which they aspire to work. A few organisations reported that students had been given feedback via the organisation's own internal performance management system. This could be encouraged where feasible, as it gives students more feedback and experience of a typical workplace process. Thus student assessment represents an opportunity to improve the learning experience for students. This is a vital aspect of WIL that requires more attention and research.

The findings suggest that there is work that tertiary institutions need to do in terms of:

- preparing students for WIL experiences and ensuring WIL is timed appropriately in courses
- providing clear information about expectations and intended learning outcomes to host organisations
- providing support to students and host throughout the activity, especially when there are issues
- collecting and disseminating information about types of work and ways of structuring students experience in the workplace
- encouraging greater attention to the host organisations' role in assessment and developing resources to prepare and support them to provide feedback to students.

Conclusion

These four key messages, extrapolated from the findings and the literature, offer insights into how tertiary institutions might improve partnerships with hosts and potentially improve outcomes for students and expand capacity. The implications are that good partnerships require effort on the part of the tertiary institution and are underpinned by effective internal co-ordination mechanisms, understanding of the host organisation's circumstances and reasons for involvement, good communication in the form of information about goals and objectives and appropriate support when issues arise. In addition, the study highlighted that host size and industry cluster are not automatic determinants of capacity to host students and also showed that the use of some models could be better promoted, potentially leading to expanded capacity.

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Evaluation of the use of Assessment Centre methodology to enhance development planning, work placement outcomes and work readiness for postgraduate students – a pilot

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Background: Placements as a form of Work Integrated Learning are widely recognised for the positive impact they have on improving student employability and work readiness. Students can maximise strengths, improve areas of weakness, and develop a strong understanding of the requirements of their chosen field within the confines of a well monitored and rich learning environment. Assessment Centres (ACs) are commonly used in corporate settings for recruitment, selection and more recently to provide developmental feedback to participants. Based on a recent literature review, the present project evaluates the application of AC methodology as a developmental tool within the placement milieu. The review, which is also included in the current conference proceedings details the benefits of utilising the AC process forming the impetus for the present pilot (Sturre; von Treuer & Keele 2010).

Aims: The primary aim of the paper was to evaluate the application of AC methodology as a tool for measuring and subsequently enhancing professional competencies in a sample of postgraduate students in organisational psychology (n=15).

Method: A longitudinal design was utilised with numerous evaluation points from placement stakeholders. This paper presents the first wave of findings. Students undertook a range of activities, including an in-tray exercise, role play, written report, leaderless group discussion and a personality assessment. Comprehensive feedback was provided by organisational psychologists who also fulfil the role of placement co-ordinators. With the assistance of Placement Co-ordinators, students prepared development plans relating to the competencies identified as requiring development. These plans were to be addressed and progress monitored during consecutive placements.

Results: Initial perceptions gathered from students regarding the AC process were very encouraging. Performance evaluations collected to date, as measured by behaviourally based ratings scales completed by the students themselves and their workplace supervisors illustrate the positive effect of this methodology. The rigour and comprehensive techniques offered by the methodology enabled students to focus on and improve areas identified for development.

Conclusions: It is important to note that the present design formed a pilot study and as mentioned was undertaken with a limited sample. Future implementation is planned with larger samples, enabling a more comprehensive analysis of the methodology. Nevertheless, the methodology appears to provide a much needed strategy for the assessment and ongoing development of students prior to and during work placements. The application provides early intervention enabling students to address development needs with input from both university and organisational stakeholders based on an established, standardised process.

Keywords: Assessment Centres; work readiness; placements; Work Integrated Learning.

Background/Context

Placements, fieldwork, industry-based learning, sandwich years, cooperative education, and internships are all methods universities use to equip students with knowledge of workplace practices. Placements as they are referred to in the current paper, have become an integral part of many higher degree courses under the umbrella initiative of Work Integrated Learning (WIL), (Smith, et al. 2009). WIL methods typically involve some form of interplay between workplace experience and formal learning as a part of a higher education course. These methods are widely acknowledged as a superior vehicle for developing generic or professional skills and improving student employability and work readiness (Patrick, et al., 2009; Murakami, Murray, Sims & Chedzey, 2009).

Placements present themselves as an intensive, higher order form of WIL in so far as the student becomes engaged as an employee in a work setting for a specified period. Students can maximise their strengths, improve areas identified for development and experience first hand some of the requirements of their chosen field within the confines of an authentic but well monitored learning environment.

Employers often argue that although graduates are knowledgeable in their own discipline, they lack the communication, collaboration and other professional skills required to make them productive without additional on the job training (Department of Education, Science and Training [DEST], 2007). Placements provide an opportunity to address and accelerate this process. Students are frequently required to collaborate and communicate with others in the workplace as they complete assigned projects. They are also in a position to test their theoretical knowledge, putting it into action in an often fast-paced and complex working environment (Murakami, et al., 2009; Bates, Bates & Bates, 2007).

Placements are recognised for their impact on learning and employability by a range of stakeholders, including industry, government, universities and students (Bates, et al., 2007; Coll, et al., 2009). In a recent study, Renn and Jessup-Anger (2008) found that students were virtually united in their agreement that practical experiences embedded in their course were relevant to a successful transition to life as a new professional. Agreement regarding the important role of placements in successfully transitioning out of the academic setting is echoed throughout the literature (Kadushin, 1992; Lefevre, 2005; Bates, et al., 2007; Crebert, et al., 2004). Crebert, et al., (2004) in a study of graduates' perceptions relating to the contributions made by the learning contexts of university, placements and post-graduate employment to the development of their generic skills found that graduates greatly valued the experience of learning during placements. Graduates and employers believed that industry involvement during higher education was beneficial as it exposed students to real problems and gave them experience with pressures commonly encountered as part of working life (Crebert, et al., 2004).

Not surprisingly, the number of placements within higher education is proliferating (Bates, et al., 2007). Higher student numbers and a greater number of courses incorporating placements have led to increases in placement participation. As noted by Bates, et al., (2007) universities are in a period of transition, whereby placement experience is receiving more emphasis in the curriculum. This trend seems to be due to the increased demand for graduates who understand the role they play in shaping the organisations they enter and have the practical skills to contribute effectively to these roles.

Further to the increased emphasis on placement experience in university curriculum, the Australian federal government has requested that universities become more accountable for the quality of such programs, requiring all stakeholders address prescribed requirements (DEST 2005). These requirements include the formalisation of responsibilities of stakeholders and the development of a more standardised approach towards placements (DEST 2005). Additionally, the assessment of graduate attributes has been the subject of discussion across education sectors and government bodies (DEST, 2007; DEEWR, 2008). Existing generic tools, such as the Graduate Skills Assessment (GSA), (Australian Council of Educational Research [ACER], 2000) and the Employability Skills Profiler (ESP), (Chandler Macleod Limited 2006) have not been favoured by universities. The GSA is costly and is considered too generic to be of value. The ESP is generally thought to be more appropriate to

non-professional job seekers (DEST 2007). In an attempt to address the need to assess professional attributes as well as addressing some of the prescribed requirements outlined, particularly with regard to standardisation of the preparation and planning students undertake both prior and during placements, the application of Assessment Centre (AC) methodology with a developmental focus was trialled in a sample of postgraduate psychology students.

ACs are a multi-exercise assessment process which have been widely utilised by organisations to identify and select appropriate job candidates for the past 50 years (Lievens, 2001; Howard, 1997). ACs employ a variety of techniques designed to measure skills and abilities considered essential for successful job performance (Joiner, 1984). Commonly, participants undertake several simulations or exercises relevant to a given job. Exercises typically include role plays, in-tray exercises, leaderless group discussions, written reports and personality assessments, which measure a range of competencies such as oral communication, problem solving and analysis, and written communication. ACs are found to yield higher criterion related validity than other selection instruments and are well regarded as an assessment technique (Turnage & Muchinsky, 1984; Robertson & Iles 1988; Howard, 1997).

Aims and Hypotheses

ACs are probably best known for their use as a tool in recruitment and selection, however over time their utility has become more expansive and in line with the present design, many organisations use them for development purposes (Iles, Robertson & Rout 1989; Engelbrecht & Fischer, 1995; Howard, 1997; Woodruffe 2000). In the main, ACs tend to be well received by participants, who typically respond positively to feedback and its developmental use (Engelbrecht & Fischer, 1995; Howard, 1997). Boehm (1985) specifies a number of conditions that should be met to ensure that ACs provide developmental value. Firstly, participants must be able to do something with the feedback provided. Secondly, the feedback must provide detailed behavioural examples. Thirdly, participants must be motivated to exert considerable effort to remedy areas identified as requiring further development, but must also be realistic regarding possible change. Based on the demands placed on students enrolled in the masters program of I/O psychology (MIOP) one can reasonably assume that they possess high levels of motivation, as well as a willingness and capacity to learn. Feedback sessions and the subsequent development plans were designed to be detailed and realistic. All conditions are therefore assumed to have been met.

The current paper aims to investigate the application of AC methodology as a developmental tool in the placement milieu. The developmental focus infers that the information gleaned during the AC is used to identify strength and development needs which are subsequently addressed. This was the exact application of the methodology in the present design. A number of researchers have applied AC methodology to the higher education setting, but typically the methodology has not been applied with relation to placements and has not adopted a developmental focus (see Riggio, Mayes & Schleicher, 2003; Mullin, Shaffer & Grelle, 1991). One study which did in fact use AC methodology as a developmental tool in a sample of applied psychology students is that of Kottke and Shultz (1997). This study demonstrated the implementation of an assessment centre for developmental purposes with applied psychology students within the placement context. Six competencies were identified via job analyses, including written communication; oral communication; problem solving; organising; interpersonal; and organisational survival skills. Four exercises, namely a leaderless group discussion, oral presentation, an in-basket or in-tray task and a role play were designed to measure the competencies. Written feedback was provided to students to use in career development planning. The present design aimed to expand on this innovative study by including the provision of comprehensive one-on-one feedback and a personality tool. AC methodology was used not only to assess a set of competencies prior to placements with a view to designing development plans to be actioned on placement, but also review and refine these plans after each subsequent placement.

Importantly, as noted by Kottke and Shultz (1997), AC methodology can be applied to a broad range of higher degree courses which include placements. The methodology is flexible and can be adapted to diverse requirements by modifying competencies and exercises to reflect current and future needs of a profession.

Based on a nexus of the conditions outlined by Boehm (1985), the literature promoting the use of AC methodology as a developmental tool (Howard, 1997; Kottke & Schultz, 1997; Engelbrecht & Fisher, 1995;

Robertson & Iles, 1988), and the vehicle provided by placements to develop specific professional competencies, it was anticipated that participants would positively evaluate their experience of the centre known as the Postgraduate Development and Assessment Centre (PG-DAC) both after feedback sessions and also after reviewing their development plans subsequent to the first placement. Furthermore, it was anticipated that the PG-DAC would show sufficient levels of criterion related validity, in terms of predicting the behaviourally anchored ratings completed by workplace supervisors. Finally, it was of interest to track students' self assessments and workplace assessments to detect whether improvements were made in an area identified as a development need.

Method/Approach

The study was approved by the Human Research Ethics Committee of Deakin University.

Participants

All students (n=17) enrolled in the first year of the MIOP were invited to participate, fifteen accepted. Most participants were female (93%).

Competency Identification

Competencies were determined through job analysis and competency modelling. Key stakeholders, industry bodies were consulted and the graduate attributes for Deakin University, Australia were reviewed. Interviews were conducted with placement co-ordinators (2), academics involved in both lecturing, supervising placements and managing the course (3), and recent course graduates/practitioners (3). The industry bodies included the Australian Psychological Society (APS) and the College of Organisational Psychologists (COP). These bodies provide a list of attributes and competencies, which were analysed to ensure that no critical behaviours were overlooked in the specification of the professional competencies.

Interviews ran for approximately one hour and utilised the SHL universal competency cards (SHL Group plc, 2004) to identify the behaviours stakeholders believed were important for newly graduated organisational psychologists. The competency cards were used to standardise the behaviours and their interpretation. Each card contains a list of behaviours relevant to a specific competency. Stakeholders were required to place each card on a four point scale ranging from critical or essential to not relevant. If stakeholders identified even one behaviour associated with the competency as critical, the competency was categorised as critical. Stakeholders were also required to provide workplace examples relating to the ratings and frequency of the behaviours.

The professional competencies identified and associated behaviours are presented in Table 1. These competencies are typical of those found describing graduate attributes and managerial skills (Deakin, 2010; Howard, 1997).

Table 1: Professional Competencies and Associated Behaviours

Competency	Behaviours
Oral Communication	Speaks clearly and fluently (using appropriate language and grammar) Expresses opinions, information and key points of an argument clearly when communicating with colleagues and clients Portrays credibility when discussing relevant information Articulates presentations with skill and confidence in all settings Responds positively and quickly to the needs of the audience and to their reactions and feedback
Written Communication	Avoids the unnecessary use of jargon or complicated language Writes in a structured, logical way Structures information to meet the needs and understanding of intended audience Explains separate thoughts or subjects in separate paragraphs
Planning & organising	Sets clearly defined objectives Plans activities and projects in advance and takes account of possible changing circumstances Identifies and organises resources needed to accomplish tasks Meets deadlines Able to resolve time conflicts Consistently confirms plans and objectives with relevant parties
Interpersonal Effectiveness	Actively listens to all people, at all levels Consults others and communicates proactively when working in multidisciplinary teams Demonstrates an interest in and understanding of others Understands team dynamics and can adapt to different roles within a team Builds an effective network of contacts inside and outside the organisation Relates to people at all levels
Deciding & Initiating action	Able to manage conflict resulting from change Makes specific recommendations in line with the organisations expectations, policies, procedures and intentions Seeks opportunities for organisational improvement Takes initiative and works under own direction when required Makes decisions under pressure Generates activity
Problem Solving & Analysis	Considers the practical issues related to implementing different solutions Considers all options/stakeholders/points of influence in determining and solving problems Makes decisions for the organisation using evidence based methods Produces workable solutions that meet the demands of the situation Demonstrates an understanding of how one issue may be part of a much larger system Look for causes of problems as well as identifying problems themselves Breaks information into component parts, patterns and relationships Probes for further information or greater understanding of the problem. Readily asks questions Makes rational judgements from the available information and analysis
Organisational Alignment & Awareness	Demonstrates an understanding of organisations and how they operate Works in a way to best advance business strategy within an organisation Understands the mindset of organisations and business in terms of bottom line goals

Exercise Design

Four exercises were developed to measure the identified competencies. The Occupational Personality Questionnaire (OPQ) (SHL Group, 2005) was also incorporated as an auxiliary tool for discussion in feedback sessions. Table 2 provides an overview of each exercise.

Table 2: Description of AC Exercises

Exercise	Description
In-tray	<p>TASK 1 Planning & Organising Assuming the role of an absent Senior Organisational Development Consultant, participants were asked to identify and group together items from the in-tray, decide on topic headings and prioritise the topics as high, medium or low priority, relating to both importance and urgency. Time given: 50 minutes.</p> <p>TASK 2 Decision Making Participants were required to make decisions about two separate issues selected from the in-tray Time: 15 minutes.</p> <p>TASK 3 Written Communication Participants were required to write a brief synopsis of the justifications, results and implications of a Leadership Development Program, based on the contents of the in-tray, for preparation of an article for a staff newsletter. Time: 25 minutes.</p>
Meeting & Presentation Role Play	<p>An assessor plays the role of a member of the Executive Committee concerned about a contentious issue plaguing the Executive. The participant was required to extract information from the Executive in a meeting and subsequently present a plan to the Executive to handle the issues of concern. Time: 15 minutes preparation for meeting, 30 minutes preparation for presentation. 15 minutes presentation time including questions.</p>
Written Report	<p>Participants were required to prepare a report for the Executive Committee relating to an in-tray item. Time: 60 minutes.</p>
Leaderless Group Discussion	<p>Participants formed a focus group as representatives for the College of Organisational Psychology. The group was asked to identify key learning and development needs for the first three years of a professional career and discuss methods to address these. Groups comprised up to 6 participants. No designated leader. The group was to arrive at a conclusion after discussion and produce a summary list of needs and delivery methods. Time: 5 minutes preparation and 40 minutes discussion.</p>

The link between the competencies and exercises is presented in Table 3.

Table 3: Competency and AC Exercise Links

ACTIVITIES → COMPETENCIES ↓	In-tray	Meeting and Presentation Role Play	Written Report	Leaderless Group Discussion
Oral Communication		**		*
Written Communication	*		**	
Planning & Organising	**			*
Interpersonal Effectiveness		*		**
Deciding & Initiating Action	*	**		
Problem Solving & Analysis	**		*	
Organisational Alignment & Awareness		*	**	

Note an * indicates that the competency is being assessed within the specified exercise. ** indicates strong evidence, or a weighting of 60%, * indicates evidence, but somewhat weaker, a weighting of 40%.

Assessors undertook two hours of training prior to PG-DAC administration. The operational approach described by Lievens (2001), whereby all assessors do not rate all assessees in every exercise was utilised. For each participant, one assessor was assigned to each exercise, ensuring that assessors did not measure the same competency twice. Whilst limiting the number of assessors can impose methodological limitations such as decreasing reliability (Howard 1997), with the aim of developing a methodology that is resource effective and can be applied in other higher education courses, a centre that that is operational in nature was implemented. Importantly, psychologists were used as assessors which has been shown to improve criterion-related validities. When compared to managerial samples, psychologists have been found to show less difficulty in using AC constructs differentially (Gaugler, Rosenthal, Thornton & Bentson, 1987; Woodruffe, 2000). Furthermore, Woodruffe (2000) reports that the ratio of assessees to assessors does not have a significant effect on predictive validity. It should also be noted that two of the psychologist assessors were the current placement co-ordinators. The involvement of the co-ordinators was thought to be critical as they play an ongoing role in the students' development during placements.

The OPQ (SHL Group, 2005) was administered electronically, and was sent to participants one week prior to the other exercises.

Participants took part in the PG-DAC in one of three consecutive days. The in-tray was undertaken first, followed by an alternate schedule of the meeting/presentation role play or the written report. These activities were subsequently rotated ensuring participants completed both exercises and eliminating order effects. The final activity was the leaderless group discussion.

Data integration was then undertaken by assessors, whereby individual scores were aggregated across exercises.

Placement co-ordinators conducted individual feedback sessions of approximately two hours. These sessions included an explanation of the competencies assessed with relation to the exercises, a thorough debrief of the individual's performance combined with the results of their personality profiles, and an exploration of strengths and areas for development. The discussion culminated in the design of plans to target the development of relevant competencies. Plans were written on a template designed for this purpose. One copy was kept by placement co-ordinators, whilst a second was given to the student. With consideration of the feedback provided, students were asked to complete a self-assessment based on the competencies. This provided a baseline for further self assessments collected at the end of each placement. A review of the developmental plan was undertaken at the completion of the first placement. Workplace supervisors also provided assessments of the students' competencies, at the beginning and end of the placement using a behaviourally anchored rating scale.

Results

As an exploration of the data, monotrait-hetero method correlations, or more simply the correlations between exercises, but within the competencies (as captured by Pearson coefficients), were 0.76** for Oral Communication, 0.34 for Written Communication, 0.25 for Planning and Organising, 0.52* for Interpersonal Effectiveness, 0.40 for Deciding and Initiating Action, - 0.04 for Problem Solving and Analysis and 0.11 for Organisational Alignment and Awareness (** indicates significance at the 0.01 level and * at the 0.05 level). Given the weak to moderate coefficients, particularly with regards to the latter two competencies, further analyses were warranted. Factor analytic techniques would be most appropriate but given the current sample size were not tenable. However, correlations within the exercises and between the competencies (monomethod-heterotrait correlations) were computed to examine the within exercise relationships, or the "exercise effect" (Woodruffe, 2000). A series of bivariate correlations were calculated for each of the exercises. The results from the in-tray, role play, written report and leaderless group discussion are presented in Tables 4, 5, 6 and 7 consecutively.

Table 4: Within Exercise Correlations for the In-tray

	In-tray- Interpersonal Effectiveness	In-tray – Planning & Organising	In-tray – Deciding & Initiating Action
In-tray- Interpersonal Effectiveness			
In-tray – Planning & Organising	0.50		
In-tray – Deciding & Initiating Action	0.53*	0.76**	
In-tray – Problem Solving & Analysis	0.59*	0.70**	0.85**

** Correlation is significant at the 0.01 level, * Correlation is significant at the 0.05 level.

Table 5: Within Exercise Correlations for the Meeting and Presentation Role Play

	Role Play – Oral Communication	Role Play Interpersonal Effectiveness	Role Play - Deciding & Initiating Action
Role Play - Interpersonal Effectiveness			
Role Play - Deciding & Initiating Action	0.73**	0.64*	
Role play - Organisational Alignment & Awareness	0.77**	0.63*	0.70**

** Correlation is significant at the 0.01 level, * Correlation is significant at the 0.05 level.

Table 6: Within Exercise Correlations for the Written Report

	Written report – Oral Communication	Written report – Planning & Organising
Written Report – Written Communication		
Written Report – Problem Solving & Analysis	0.72**	
Written Report – Organisational Alignment & Awareness	0.78**	0.86**

** Correlation is significant at the 0.01 level, * Correlation is significant at the 0.05 level.

Table 7: Within Exercise Correlations for the Leaderless Group Discussion

	Leaderless Group – Oral Communication	Leaderless Group – Planning & Organising
Leaderless Group – Oral Communication		
Leaderless Group – Planning & Organising	0.64*	
Leaderless Group – Interpersonal Effectiveness	0.79**	0.53*

** Correlation is significant at the 0.01 level, * Correlation is significant at the 0.05 level.

Upon reviewing the coefficients, it is apparent the correlations from within the exercises and between the competencies typically share more of the variance than the correlations within the competencies and between the exercises. In other words, most of the hetero-trait monomethod correlations were higher than the monotrait-hetero method correlations. Whilst based on a limited sample, it would appear that exercise effects have emerged.

The logical expectation is that the correlations within the competencies and between the exercises would be greater than the correlations within the exercises and between the competencies, however, the opposite is commonly found (Woodruffe, 2000). Remedies, typically in the form of improvements in training such as increasing the length of training, limiting competencies and listing key behaviours have been suggested and have been found to reduce exercise effects (Schleicher, Day, Mayes & Riggio, 2002; Lievens, 2002). It should be noted that the present study incorporated most of these strategies within its design. Nevertheless, further improvements are possible. The key behaviours relating to the competencies will be reviewed. This is likely to be particularly important for the competencies of Problem Solving and Analysis and Organisational Alignment and Awareness, which revealed low correlations within the competencies and between the exercises (monotrait-heteromethod). Improvements are also planned for assessor training. The competencies and how the exercises measure them will be explained more thoroughly to assessors to ensure a common definition and a better understanding of the differences between competencies. As noted by Woodruffe (2000), if competencies are not clearly separated in their definition, it is unlikely that there will be differentiation between them in the ratings. However, it is acknowledged that whilst remedial strategies lead to some improvement, they rarely succeed in producing a clear pattern of competency effects (Thornton & Gibbons, 2009). More recently, research suggests the treatment of exercise effects as measurement error is not warranted for ACs (Lance, 2008). Lievens (2002) suggests that exercise effects represent real variation in performance across exercises, whilst Lance (2008) concludes that candidate behaviour is situationally-specific, rather than cross-situationally consistent. Indeed it may be the case that the exercises, particularly those within the competencies of Problem Solving and Analysis and Organisational Alignment and Awareness reflect quite different situations. However, improvements have been planned. Finally, it would be of interest to examine data following future implementation using exploratory and confirmatory factor analytic techniques to detect whether exercise factors do in fact exist.

Participant Evaluation

Participants were surveyed shortly after the feedback sessions to evaluate their experience of the PG-DAC . The means and standard deviations from the survey are presented in Table 8.

Table 8: Participant Evaluation after Feedback Sessions

Question	Mean	Standard Deviation
1. Overall response to being involved in PG-DAC	4.23	0.60
2. Please rate the relevance of the activities completed to your future work environment	4.54	0.52
3. How effective were the activities at providing evidence of the relevant competencies?	4.46	0.52
4. The PG-DAC enabled me to identify strengths and development needs of which I was not previously aware	3.85	0.80
5. The PG-DAC reinforced strengths and development needs of which I was already aware	4.23	0.60
6. The PGDAC assisted me in identifying placement opportunities which are most suitable for me	3.69	0.85
7. The PG-DAC helped me to identify specific areas which I need to focus attention on during my placements	4.46	0.52

Note: For question 1, responses ranged from 1= extremely negative to 5 =extremely positive. For questions 2 and 3, responses ranged from 1 = not at all relevant to 5 = highly relevant. For questions 4 to 7, responses ranged from 1=not at all to 5=to a significant, (n = 13 for all questions).

As noted in Table 8, the ratings across most questions were very favourable. Consistent with the descriptive statistics presented above, comments from students emphasised the overall value of the centre. Students were asked to comment on their overall response to the PG-DAC, the activities and their relevance, and provide suggestions for improvements. Participants employed terms such as rewarding, useful or synonyms of such terms. Interestingly, the majority of participants (61.5%) also found the experience challenging or intense. A couple of example comments are: “*Overall rewarding - demanding day - rewarding feedback session,*” “*Experience very useful - quite intense on the day - very appreciative of the opportunity.*” Suggestions for improvements related to the need for further communication prior the centre and the independent nature of the leaderless group discussion, which was not linked to the other exercises.

Follow-up surveys were undertaken subsequent to the first placement and upon reviewing development plans and their effectiveness. Results from the follow-up survey are presented in Table 9.

Table 9: Participant Evaluation Subsequent to First Placement and Reviewing Development Plans

Question	Mean	Standard Deviation
1. How effective do you feel the PG-DAC process has been in helping you feel prepared for your first placement?	3.81	0.60
2. How effective do you feel the PG-DAC process has been in providing an opportunity to address your development needs while on placement?	4.15	0.42
3. How effective do you feel the PG-DAC process has been in providing an opportunity to maximise your strengths while on placement?	4.12	0.53
4. How effective do you feel the PG-DAC process has been in contributing to your overall work readiness (i.e. to start with a new employer in a role as an organisational psychologist or similar role?)	3.90	0.81

Note: For all questions, responses ranged from 1 = not at all effective to 5 = extremely effective.

As seen in Table 9, participants generally felt that the PG-DAC had been helpful in preparing for placements, providing opportunities to address placement needs, maximising the impact of placements and contributing to their readiness to practise as an organisational psychologist.

Favourable feedback was received both prior and subsequent to the first work placement undertaken by students. In sum, students perceived the centre to be useful and effective in their pursuit of the competencies relevant to organisational psychology. Based on feedback, the leaderless group discussion will be re-designed to better integrate with the other exercises. Improvements are also planned for a more comprehensive communication strategy regarding the process.

It would be of interest to follow-up with participants after graduation to determine if they found the PG-DAC experience beneficial in supporting them during their transition to paid work. This is intended.

Criterion Related Validity

Correlations were calculated using z-score transformations based on the weighted ratings of the competencies from assessors at the PG-DAC and the behaviourally based ratings from workplace supervisors at the beginning and end of the first placement. Pearson correlations are presented in Table 10.

Table 10: Correlations between PG-DAC Scores and Organisational Supervisor Ratings

	PG-DAC Z-score OC	PG-DAC Z-score WC	PG-DAC Z-score PO	PG-DAC Z-score IE	PG-DAC Z-score DI	PG-DAC Z-score PSA	PG-DAC Z-score OAA
Organisational Supervisor Z-score start	0.22	0.33	0.48	0.48	0.46	-0.06	0.31
Organisational Supervisor Z-score end	0.24	0.26	0.35	0.50	0.30	-0.21	0.15

Note that abbreviations have been used for the competencies. OC, Oral Communication; WC, Written Communication; PO, Planning and Organising; IE, Interpersonal Effectiveness; DI, Deciding and

Initiating Action; PSA, Problem Solving and Analysis; OAA, Organisational Alignment and Awareness.

As shown in Table 10, correlations indicate moderate to relatively high predictive validity across the competencies, apart from Problem Solving and Analysis. The relationship with regards to Problem Solving and Analysis suggests that the lower the score from assessors on the PG-DAC, the better the rating the individual receives from organisational supervisors at the end of the placement, whilst the correlation at the beginning shows no relationship at all.

This competency revealed a poor monotrait-heteromethod correlations as well as poor criterion-related validity. It may be that PG-DAC assessors and workplace supervisors did not have a consistent view of what this competency and its associated behaviours mean. Whilst the in-tray and written report were used to assess this competency, it seems unlikely that workplace supervisors would incorporate written reports in their assessment of Problem Solving and Analysis during a student placement. It seems more likely that they would consider the students' general approach to work projects. The link between Problem Solving and Analysis and written reports may need to be more explicitly stated. The planned review of the key behaviours associated with the competencies may improve this outcome. Furthermore, the definition provided to workplace supervisors will also be reviewed. It is also worth noting that this competency may be more easily measured with a cognitive ability test than a set of behaviours. Future examination following further implementation of the PG-DAC is required to provide more light on this issue.

Importantly, predictive validity from the PG-DAC is in line with most other research in this area. ACs have a long history of predicting external criteria well (Gaugler, et al., 1987; Robertson & Iles 1988; Thornton & Gibbons, 2009). More recent meta-analyses have found rather modest coefficients (Hardison & Sackett, 2004; Hermelin, Lievens & Roberston 2007) and the present study revealed a range of coefficients from modest to relatively high. The results are promising, but without a larger sample, it is difficult to make conclusive remarks.

Development Needs

Written Communication was identified as a development need for many of the participants ($n=9$), hence this competency was examined across time points using paired t-tests to detect whether improvements were made according to both self assessments and workplace supervisors assessments. Self assessments made prior to the first placement ($M = 5.40$, $SD = 1.96$) and at the end of the first placement ($M = 6.90$, $SD = 1.29$) showed a significant improvement over time, $t(8) = 0.403$, $p=0.00$. Similarly, workplace supervisor assessments showed a significant improvement over time, with the mean at the beginning of the placement, ($M= 6.67$, $SD = 1.22$) significantly lower than the mean that the end ($M = 7.89$, $SD = 1.17$), $t(8) = -0.377$, $p = 0.01$.

An improvement in Written Communication was observed based on both the self assessments completed by students and the less subjective assessments completed by workplace supervisors. Some improvement would be expected on all competencies over time and whilst many factors may be contributing to this improvement, the PG-DAC was instrumental in identifying development needs requiring particular emphasis during placements. This finding points to the importance and effectiveness of placements as a vehicle for developing the generic attributes required by employers. Students participating in the AC process are likely to have an advantage over others when it comes to addressing and accelerating the acquisition of desired skills. Students receive feedback at an early stage of their careers and can take targeted remedial action well before entering paid employment. In sum, the rigour and comprehensive techniques offered by AC methodology enables students to focus on and improve areas identified for development as well as maximising strengths.

Conclusion

Assessing employability skills or graduate attributes has been a prominent subject of discussion within education sectors and government bodies. It is thought that workplace supervisors are in a unique

position to assess and provide feedback on a student's employability skills (DEST 2007). The application of AC methodology is likely to bring more exacting standards to this process. By employing AC methodology and providing workplace supervisors with behaviourally anchored rating scales, they are likely to be in a better position to accurately assess desired professional skills. As mentioned, existing generic assessment tools such as the GSA (ACER, 2000) and the ESP (Chandler Macleod Limited 2006) are not favourably perceived. AC methodology appears to address a need that is currently unmet, as users can modify competencies to reflect the current and future needs of graduates. It must be acknowledged that AC methods are resource intensive, but given that the expertise to design and implement them exists within most higher education settings, cost savings are likely. Additionally, if the centres are designed to be operational as in the current design, costs can be further contained. Unfortunately, this can impose important methodological limitations. Lievens (2001) found that increasing the number of assessors scoring an exercise had a greater impact on the reliability of the centre than increasing the number of exercises, however, given the economic constraints facing most educational institutions, this is likely to become a trade-off with strategies, such as using psychologists as assessors.

It is important to note that the present design formed a pilot study and as mentioned was undertaken with a limited sample. Future implementation is planned with larger samples enabling a more comprehensive analysis. Nevertheless, the findings are promising and the application of AC methodology appears to provide a much needed strategy for not only assessing professional competencies, but also providing a standardised way forward for universities with regards to the preparation, planning and ongoing development of professional competencies in placements.

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Can we rely on the workplace to bridge the theory-practice gap in Planning?

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Background: There has been wide-scale adoption of WIL in Australia, with some universities setting themselves minimum targets of courses with an identifiable WIL component. This reflects a general push to produce graduates that are employment ready. WIL is largely seen as the means to deliver the graduates attributes sought by employers. WIL is expected to produce a win-win situation whereby students can be confident that the knowledge they acquire has practical value and can be readily translated into employability and the employers are confident that the graduates they employ are up to the mark and can be productive from day one at the job. Other benefits could be seen in terms of students building networks and learning about work culture, while employers could see savings in terms of reduced risks and need for induction and basic training and skilling of new recruits.

The proposed paper contends that the generic benefits may not easily be realized in the specific context of courses such as Planning where the gap in theory and practice is significant, giving rise to concerns about academic objectives of teaching. Furthermore, as a significant proportion of Planning students are already in paid employment in the field, many advantages of WIL are pre-empted and instead new complications may arise regarding placement of students in the workplace by the university.

The paper reports on findings from past experience and the current initiative by the department to develop a WIL component within its Planning course in collaboration with industry partners – local governments (the major employer of Planning graduates) and the professional institute of Planning. It will report on interviews of the various actors involved in the collaboration, namely academics, industry representatives and the students.

Aims:

To investigate the extent to which views on essential content and focus of learning– with specific reference to the theory-practice connection – can be reconciled between various actors in WIL in the context of Planning discipline;

To identify the extent of WIL benefits that can be realised in the Planning course

Method:

Review of records/ anecdotal accounts of previous WIL type efforts in the School

Content analysis of PIA education and accreditation policies Interviews of local government representatives (potential employers) Focus group of potential employers, PIA representatives and students

Results: The paper will report on initial findings regarding the potential for identifying common grounds and common objectives through collaboration. It will also report on potential opportunities and obstacles identified.

Conclusions: It is hoped that the paper will lead towards the identification of a model of WIL that is feasible for application within the specific constraints of the Planning discipline.

Keywords: Collaborative learning; Workplace learning; Theory-practice gap.

Introduction

As Ince (2007) notes, universities (in western/ developed countries), “are closely integrated into the economies and societies of which they form part.” In Australia, universities tend to seek alignment with and be responsive to the needs of industry in the areas of both research and curriculum development. It would be natural, therefore, to assume that the wide-scale post-Fordist restructuring of the economy would have a corresponding effect on the direction of tertiary sector of education. The globalisation of the economy has seen the push for a corresponding globalisation of education which has been compounded further by the rise of neo-liberalism over the past few decades. In the face of these changes, universities have felt the need to realign their strategies to reassert their relevance while

seeking to ensure their economic sustainability. A good example is the current focus of universities across Australia to internationalize higher education which Knight (1999:14) has described as a 'proactive' response to globalization.

As part of the response to the changing milieu and new social realities, there has been wide-scale adoption of the concept of work integrated learning (WIL) among Australian universities. Some universities set themselves minimum targets in terms of the number of courses they would like to offer with identifiable WIL components by certain dates. For example, Griffith University's Strategic Plan 2006-2010 had set a performance indicator and target that required that '70% of all Griffith programs include an identifiable work-integrated learning component by 2010'.¹⁰ This reflects a general push to produce graduates that are 'employment ready'.

Currently, strategic policy-making by universities seems to revolve around clearly defining and pursuing specific graduate attributes for students university-wide. In the case of courses related to distinctive professional disciplines, the emphasis has consequently been on defining upfront the graduate attributes sought by employers within the profession. Professional accreditation of such courses serves as a major vehicle towards achieving this objective. Professional institutes such as the Planning Institute of Australia (PIA) view work experience largely as an effective strategy and means to deliver selective professional attributes.

However, the focus on employability of graduates in designing curriculum and delivery format of courses has to be balanced against the broader and long term goals of higher education. Hunt (2009) warns about the risk we face of treating WIL and employability skills development as gimmicks rather than as part of the broader responsibility of universities to prepare students for life and not only for the workplace. Hunt stresses the need for strong and strategic direction from the university hierarchy to ensure that WIL could be successfully implemented.

It is contended that in view of the wider responsibility of universities to prepare students for life-long learning, and the more specific requirements of the workplace, effective delivery of WIL requires that there is a meaningful engagement between the university and the industry. Such sustained engagement could then be expected to produce the desired win-win situation as alluded to below:

Work Integrated Learning (WIL) is a two-way street. It leads students into the workforce and brings the workplace into the curriculum. It provides opportunities for students to gain theoretically-related, work-based experience and it creates opportunities for curriculum innovation through the full or partial replacement of coursework or dissertations by programs conducted within the workplace¹¹.

On the one hand, by participating in WIL, students can see that the knowledge they acquire during their academic learning has immediate practical value which can be readily translated into effective work performance and, therefore, high employability (Kaider *et al.* 2009). Some of the obvious benefits for WIL can be easily articulated and include building networks and learning about work culture and professional etiquettes among other things (Gibson *et al.* nd). The learning can be personal, impersonal, interpersonal, social and institutional (Foley 2004). The task for the university in this context is to ensure that broader overall learning for life goals are also achieved in the process, or at the least, are not compromised. On the other hand, employers can be confident that the graduates they employ measure up to acceptable standards, already acclimatized to the workplace and, therefore, work-ready and potentially productive from day one at the job. They could see the savings in terms of reduced risks and reduced costs of induction and basic training and skilling of new recruits. Employers then could be assumed responsible for providing an appropriate learning environment for the students at the workplace.

¹⁰ This was extracted from the web site (<http://www62.gu.edu.au>) in January 2009. In the current Strategic Plan, reference to the specific targets have been removed to read: "Griffith will offer a signature learning experience by providing students with identifiable work-integrated learning opportunities in all of its programs (http://www.griffith.edu.au/__data/assets/pdf_file/0004/109192/strategic-plan-2009-2010.pdf accessed June 1, 2010)

¹¹ Accessed on 1/4/10 from web site - <http://www.heacademy.ac.uk/ourwork/learning/employability>.

Structure of the Paper

This paper looks into the feasibility of implementing WIL in the discipline of urban and regional planning in Australia. It focuses on the experience of the Urban and Regional planning department at Curtin University in Western Australia.

The paper presents a quick assessment of the state of play on the adoption of work integrated learning (WIL) in Australian universities, including Curtin University. It focuses on issues regarding the relationship between theory and professional practice specifically in the area of the Built Environment and the discipline of Planning. It seeks to identify the factors that could affect the extent and manner to which WIL could be effectively implemented within the planning course. In doing so, it refers to the state of the planning profession and the conditions at the workplace.

The paper reports findings of a critical review of archival records and documentation that trace the pressures on department of planning at Curtin University to incorporate WIL related initiatives into its curriculum and its response to those demands, with specific reference to the education and accreditation policies and processes of Planning Institute of Australia (PIA). It maps out references to WIL related matters found within periodic course reviews and associated surveys conducted between 1988 and 2008 that asked stakeholders comprising of practicing professionals (including potential employers from both private and public sectors) and planning students, to assess the strengths and weaknesses of the planning course.

This introductory section is followed by a brief overview of WIL initiatives in universities within Australia. A theoretical discussion of relevant concepts and various aspect of WIL in the specific context of planning education follow. The paper then reports on the responses of various surveys of stakeholders carried out in relation to PIA accreditation. This is followed by a discussion of the findings regarding the potential common grounds and common objectives through collaboration between stakeholders. The paper concludes by pointing to the essential elements of a WIL model that would be feasible for application within the specific constraints of the Planning discipline.

Australian Universities and WIL

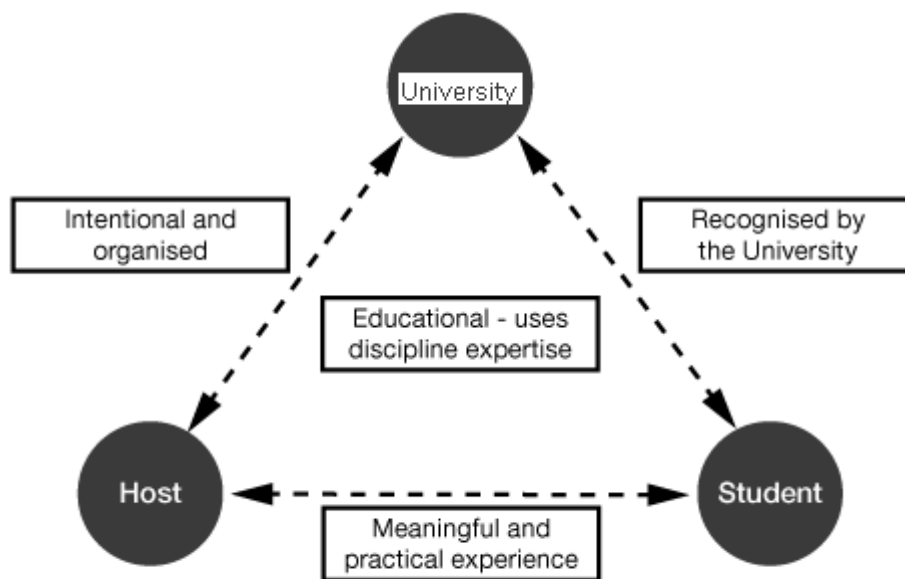
A quick scan of Australian university web pages reveals that universities seek to emphasize the benefits of WIL. Griffith University's web site defines WIL as "a range of educational activities that integrate theoretical learning with its application in the workplace, community, studio or practice setting, and provide an authentic experience of work or professional practices that typically occur in these settings." A number of benefits are attributed to the "pedagogical structuring of the learning experience and the integration of the theory and practical aspects of the work or professional experience". These include among other things preparing students for professional practice and contributing to the development of the university's graduate attributes. The University of Tasmania describes workplace learning in terms of "practicum, fieldwork and practical placement". It sees workplace learning as a means to provide students with practical experience wherein they can apply theoretical concepts and knowledge. It provides the opportunity for students to "practice the skills of the profession in a real life setting".

Curtin University defines "work-integrated learning" as "an umbrella term used for a range of approaches and strategies that integrate theory with the practice of work within a purposefully designed curriculum (Patrick et al., 2008, p.v)" Queensland University of Technology emphasizes the opportunities that WIL provides "for students to apply theoretical knowledge, develop and consolidate skills, reflect on practice, and develop an understanding of the relevant profession or related sectors ..". It describes WIL as being "essential to providing real-world experiences."

Most universities envisage WIL as a contractual arrangement between three stakeholders - the student, the university and the industry - each with prescribed roles and responsibilities. WIL is thus seen as a three-way mutually beneficial arrangement (Figure 1). Monash University, for example, describes WIL as “an activity agreed between a university and a "host" or "sponsor" employer, where students gain recognised course-related experience with the employer.” QUT treats WIL as “mutually beneficial and long-term outcomes for the student, the University and the participating industry / professional workplaces or communities. (Webb and Hayes, 2008)”. QUT highlights the potential of WIL used for academic credit and notes that “increasingly the host employer is involved in assessing the work undertaken by students”. The University of Tasmania envisages workplace learning as contributing to “economic and professional spheres or real-world activity” and a means of improving the quality of student learning outcomes. As a three-way partnership model of teaching and learning, it encourages the setting up of guidelines for work placement to help prepare students for placement and to define supervision and assessment of students.

Murdoch University emphasizes workplace learning as being a vital part of its education business. It also envisages workplace learning as resulting from a three-way cooperation between the student, the workplace and the university. The Murdoch University website reports that some courses such as Education and Psychology and others “require a significant amount of Workplace learning as part of their curriculum, as professional bodies have determined that graduates must have such experience before they are eligible for registration/ accreditation.” It further states that other more general courses also incorporate workplace learning to provide students a deeper understanding of the workplace and to help them build stronger links with potential employers.

Figure 1: Three-Way Beneficial Partnership: Work-integrated Learning (WIL)



Source: Adapted from Monash University Web Site (www.careers.monash.edu.au)

Curtin University’s Approach Towards WIL

A number of schools/ departments within Curtin University representing specific discipline areas such as health, education and the built environment are engaged in the implementation of work experience programs in the curricula. Generally these departments are responsible for organising the format, content, assessment and length of placement for these programs although some restrictions and/or requirements are placed on the practicable application of skilling by relevant professional agencies.

A 2008 Australian Universities Quality Agency (AUQA) quality audit of the university recommended that “Curtin consider additional ways to assist students (locally and offshore) to gain practical experience or locate work placements”. In response, the Deputy Vice Chancellor (Education) reported that “Work Integrated Learning is now a major focus within the University’s Teaching and Learning Plan ..” and that a “ Comprehensive Course Review process will identify opportunities for work integrated learning and /or work experience in every course” (Curtin University 2010).

Curtin University is currently investigating the applicability of WIL across the University by identifying potential WIL components at course level that could serve to develop graduate capabilities with consideration to risk and industry partnerships. A Career Development Learning (CDL) Plan has been drafted and endorsed by the University Teaching and Learning Committee (UTLC). This is in addition to other priorities for 2010 that include the mapping of CDL in courses along with a coordinated approach to WIL (WIL Committee 2010).

Workplace Based Learning within School of Built Environment

The School of Built Environment at Curtin University comprises of the departments of Urban and Regional Planning, Construction Management, Architecture and Interior Architecture. From among these, the department of Construction Management has the most elaborate workplace learning component as part of its course.. The undergraduate program in Construction Management and Economics includes an eighty-day work experience requirement. To this end, students must find an industry placement and, together with their employer, maintain a log of the hours worked. This work experience requirement is not aligned to a particular unit and students are required to complete their eighty days of work in addition to the course work. Students are not eligible to graduate without completing this requirement and the work experience is also a requirement of the course accrediting bodies.

In this model, there is no direct contact between the employer and the university. While the student is the conduit for the experience, there is no formal agreement between the industry, the university and the student. The Department does not locate work places for students. Where the work experience consists of unpaid work, the costs of work insurance is covered by the university, otherwise it is the employer’s responsibility.

In compliance with DEST rules on Work Experience in Industry (WEI), all students are provided with a set of guidelines explaining what comprises the work experience. However, there are no formal instructions provided to employers. Instead the DEST requirement is generally translated as requiring the student to arrange for the employer to maintain and sign off on the log that acknowledges the hours of work experience completed by the student.

Despite the lack of any control or formal monitoring of the process, there has been little evidence to date, anecdotal or otherwise, of any significant issues with this practice in general. There are, however, issues with regard to international students who experience difficulty in securing work placements due to a number of reasons including lack of language competency and certain complications with visa requirements.

In the past, the Department of Urban and Regional Planning has incorporated workplace learning and some rudiments of WIL into the program. In 1996, combined with a practice-based unit, students were required to complete two weeks of unpaid work experience during the Easter break. Those unable to find their own placement were assigned a work place environment by the Department. This activity was formally abandoned when the demand for planners increased dramatically due to a shortfall of qualified planners. This formal placement was consequently taken off the course and replaced by learning modules dealing with codes of conduct and practical instruction. Matters related to ethics and work place rights in paid work situations were also addressed.

The Planning Program and Curtin Graduate attributes

The course objectives and learning outcomes of the Urban and Regional Planning (URP) degree are well aligned to the graduate attributes set up by the university (Figure 2). This was the result of a conscious effort during the last extensive course review process completed in 2008. “Collectively, these ensure that students entering the profession have a sound basis of understanding and are able to develop, critically apply knowledge, adapt and learn in a continuing way” (Brunner 2007:8).

The URP department follows Curtin University policy of emphasis on ‘student-centred’ learning. Student-centred learning may be described as an approach to teaching and learning that focuses on how students learn, what they experience and how they engage in the learning context (Moore 1999).¹² Cannon (2000) distinguishes student-centred learning from conventional learning in terms of the emphasis the former attaches to student responsibility for learning – students are made responsible for a whole range of learning related activities starting from planning the learning activity to assessing their learning.

The department, in line with the university’s overall approach, seeks to produce graduates with practical training and creative thinking and believes their graduates:

are well-rounded, able to work in a variety of environments and have exposure to learning environments which have addressed social, environmental and physical aspects of development whilst learning about the ethical and moral dilemmas which may face planners in today’s world” (Brunner 2007:8)

Figure 2: Alignment of Curtin Graduate Attributes and Planning Course Learning Outcomes (c 2010)

Curtin’s graduate attributes	Course Learning Outcomes
	A graduate of the Bachelor of Arts (Urban and Regional Planning) can:
1. Apply discipline knowledge, principles and concepts	Apply the principles, theories and concepts of urban and regional planning and draw upon appropriate knowledge of social, economic and environmental factors within a governance framework to practise planning, particularly in the Western Australian context.
2. Think critically, creatively and reflectively	Think critically to analyse and challenge theories and practices of urban and regional planning, and generate creative solutions to planning issues.
3. Access, evaluate and synthesise information	Access, evaluate and synthesise information in order to undertake research relevant to urban and regional planning
4. Communicate effectively	Communicate effectively in written form, graphically and orally to various audiences (academic, professional and community).
5. Use technologies appropriately	Use appropriate technologies to practice urban and regional planning.
6. Utilise lifelong learning skills	Use learned skills to continue self development in the profession.
7 International perspective	Develop skills in managing and responding to cultural diversity and difference in national and international perspectives.
8. Cultural understanding	
9. Apply professional skills	Work ethically as individuals and in teams demonstrating skills in negotiation and conflict resolution, recognising the contribution of other disciplines and interests.

¹² The RMIT web site quotes Keri Moore (1999) in describing student-centred learning. See <http://www.teaching.rmit.edu.au/progimprov/sclearn.html> - accessed on August 4, 2010.

WIL in the context of Planning Education

The focus of this paper is on the utility of workplace experience and WIL in the context of education related to the discipline of Planning. The course accreditation process requires the department of Urban and Regional Planning to liaise closely with the professional planning institute. For many years, the Planning Institute of Australia (PIA) has been using the periodic course review process tied to the certification of accreditation to actively advocate for inclusion of workplace experience within the planning course. Meanwhile, in more recent years, the university has undertaken an initiative to identify opportunities for incorporating WIL components in courses across the university.

We believe that a prerequisite to the successful design and implementation of WIL component in the planning course, is a clear understanding of the perspective towards planning education of the main stakeholders, mainly the university (academics) and the industry (practicing professionals and the professional institute). Students should also be involved in the deliberations and their opinion sought and considered. It is contended that the generic benefits attributed to WIL may not automatically be realized for courses aligned to distinctive professions such as Planning, even though the workplace may seem to offer the environment “for providing real-world experiences” (QUT web site) and the professional institute may promote or require WIL. It requires a closer look into the views of the two sides on the essential content and focus of learning in planning courses – with specific reference to the theory-practice connection or gap. As the brief review of planning theory literature below suggests, the gap in theory and practice in planning has been significant historically.

The case for linking planning education to practice is well established (Gunder 2002; Auffrey and Romanos 2001; Minnery 2000). Minnery (2000) argues that incorporating practice in planning education can provide students with the opportunity to understand the work environment and help improve the planning system, contribute to developing and enhancing planning theories based on practical experiences, and fulfill the needs of the community and profession. Gunder (1998; 2002), similarly emphasizes the role planning education should play in raising students’ understanding of human values, local truths and power in day to day life of professional practice while developing their creative abilities. Gibson et al (nd: 1) stress the point that “the fundamental concept of learning in the workplace .. is not new .. [and] is reflected in historic models of apprenticeships.” In planning training and education in the past, this was often undertaken as in a position referred to as a cadetship within the public service.”

Skills Required by the Planner

Planning focuses on decision-making related to land and its optimal allocation of use. The implications of such activity are wide-ranging as spatial organization tends to be seen as the means of delivering social objectives. The Planning Institute of Australia (PIA) describes the skills required by planners:

More than any other profession, planners have the skill and insight to understand the relationships between government policy, community needs and expectations, environmental impacts, socially acceptable and spatially oriented outcomes. (PIA Strategic Plan (nd.) quoted in PIA 2004:4)

With increasing urban complexity over time, demands of skill requirements for planners increase:

When the first graduates finished their courses half a century or so ago, the skills required were in regulating development in accordance with zoning plans and designing new suburbs to meet the demands of Australia’s growing population. .. (By now) new spatial planning skills have been required encompassing urban design, social planning, environmental planning, local economic

planning, regional planning and transport planning. Planners also need a range of generic skills such as negotiation, facilitation, consultation, project management. (PIA 2004:5)

Clearly, universities cannot cover each aspect of skills development and knowledge acquisition required of planners. As a result, different schools offer courses that focus on particular areas of learning more than on others. As planning is an action-oriented profession, planning schools also rely on the profession and industry to provide training and skill development opportunities in certain areas best taught in the workplace. As planners are increasingly required to work in multi-disciplinary contexts, the extent of coverage of planning curricula is further limited. These facts strengthen the argument that planning education would benefit from work-integrated learning.

There seems to be difference of opinion within the profession as to “whether university graduates should have a high level of these skills or whether many of these skills were best learned on the job and through continuing professional development.” While it is suggested that courses with “on the job training and practical subjects were well placed to deliver skilled graduates”, it is also suggested that “many of these skills are best taught at university in a holistic way”. (PIA 2004:30)

The precious little systematic data available suggests that even practicing planners who would be expected to have picked up additional skills at the workplace, seem to be lacking in certain skills. A 2004 National Inquiry into Planning Education and Employment by PIA, for example, reported receiving “information, particularly from outside the profession, that planners should have better skills in some areas including:

- Project management – especially dealing with complex proposals.
- Development assessment.
- Better understanding of how the private sector operates.
- Negotiation and communication. (PIA 2004:30)

The point to be noted here is that it is possible to miss out on certain skills at both the university as well as the workplace. While the two may have complementary strengths in delivering skills learning, there could still remain gaps not accounted for by both. This highlights the dangers of universities’ over-reliance on the workplace to cover any gap in knowledge and skills of their graduates.

On-going Debates on Theory-Practice Gap

Planning is a relatively new profession with on-going debate about the role of the planner. For decades, the debate revolved around the distinction made between substantial and procedural aspects of planning, a distinction highlighted by Faludi (1973) by his emphasis on the distinction between ‘theories in planning’ and ‘theories of planning’. Such issues captured much of the debate agenda in planning theory. Around that time there has also been a substantial debate about the gap between planning education and practice. As Faludi (1987) notes:

Much concern is expressed about the academician-practitioner gap (see Susskind, 1974; Peroff, 1974; Galloway and Mahayni, 1977; Bolan, 1981; Breheny, 1983; Breheny and Hall, 1985). (...) Planning education owes society effective, as well as educated, practitioners. So planning academics should debate the challenges of practical decision-making, even more so than the functions of planning in capitalism.

The hint of frustration about academics’ focus on the substance of planning or the ‘why’ question can be gleaned from the above. Faludi favoured engagement with procedural aspects and the ‘how to’ question. Such views supported the debate whether planners are technicians (who get the job done efficiently) or politicians (who are more concerned with determining community needs, demands and

equity). Kaufman and Howe (1979) carried out an extensive survey of planners in the US to determine what practicing planners actually saw their role to be – a technician (dealing with procedural aspects of planning) or a politician (dealing mainly with the substance of planning). They concluded that most planning practitioners saw themselves as a hybrid between the two, and assumed different roles as required.

In theory, rational planning promoted the image of the planner as a value-neutral technician/ expert who applied rational decision-making in the carrying out of assigned tasks. This notion was however challenged over the years on a number of fronts. Charles Lindblom (1959), for example, suggested that in practice, planners depended upon intuition rather than scientific method in most cases. While in theory, planners adopted a scientific approach to rational planning, in practice planning amounted to *ad hocism* and disjointed incrementalism which encouraged planners to muddle through and avoid making big decisions. Meanwhile, Paul Davidoff (1965) challenged the value-neutrality of planners in carrying out their responsibility of promoting the public good and fairness and promoted a more pluralistic approach to planning and plan-making.

Post-modernism brought into debate the role of communication and inclusivity as fundamental principles of planning. Habermas' concepts of ideal speech and communicative rationality inspired a number of planning scholars to promote concepts such as communicative planning, discursive planning, collaborative planning and deliberative planning. Healey (1996) declared the 'communicative turn in planning' had occurred in terms of a changing paradigm. However, there has been a debate over whether these developments amount to a paradigm shift in planning (see for example Yiftachel and Huxley 2000). Meanwhile the popularity of sustainable development concepts since the late 1980s made tremendous impact on planning philosophy and practice. Despite the inherent ambiguity, planning schools have adopted the concepts of sustainable development into their curricula and many professional institutes have endorsed its principles.

Throughout its short history, planning has undergone extensive and evolving debates within the profession about the role of the planner, further compounded by the changing paradigm brought about by changing world views. As planning is a relatively recently established discipline, it also borrows heavily from other established disciplines, prompting some scholars to claim the absence of indigenous theory in planning. All such factors combine to make planning theory seem somewhat irrelevant and unattractive to many planning professionals (and students).

It is important, therefore, to be aware of the possibility of significant divergence of views between academia and the profession. The necessity of maintaining active dialogue is well recognized as is evident in the close involvement of the professional institute with universities and the large numbers of practicing planners teaching into planning courses. WIL can provide a means of formalizing the linkages and thereby closing the gap between theory and practice. It is contended that WIL engagement would require to be supported by deliberate attempts at reconciliation of viewpoints by both sides to ensure that the gap between academics and practitioners is reduced.

PIA Accreditation Reviews

The Process

This section attempts to trace the history of the concern for workplace learning with respect to the planning course at Curtin. It reports on the findings from a scan of archival documents related to reviews by PIA accreditation boards and the department's response to identify and map out any references to aspects related to WIL. This section refers to reviews by stakeholders, including surveys conducted by the department of planning as well as the reviews by the consecutive accreditation boards of the professional planning institute (i.e. PIA, formerly RAPI).

In accordance with professional accreditation processes, the planning program at Curtin University has been subjected to systematic and periodic reviews since the 1970s (Hedgcock nd: 129). These reviews and subsequent changes incorporated by the planning department at Curtin are informed by planning education research, industry knowledge, quality assessment, stakeholder analysis and various university performance measures (Hedgcock nd: 129).

The process begins with the department submitting a report on the course structure for review by the professional body in order to maintain its accreditation. The planning department is then visited by an accreditation board convened by the professional institute which consults students and academics. Following the visit, the accrediting body sends commendations and recommendations to the school and determines whether the programs should be recognised as an appropriate planning qualification for membership of the planning institute (Hedgcock 1989:5).

Stakeholder input has been sought by the department (and is on record) for comment on the course since 1972. Generally this input has been achieved, certainly in more recent years, by the issuing of questionnaires and the formation of focus groups including academia, the industry (both public departments/ agencies and private consultancies) and students, as part of the accreditation process. This input involved “a review of future skills and knowledge required by graduates and an assessment of the strengths and weaknesses of the course and its graduates” (Hedgcock nd; Hedgcock 1989; Hedgcock 1995).

Course Review

In 1988, a questionnaire survey of all undergraduate students of Curtin planning course asked what they envisaged as the benefits and disadvantages of working in the planning field whilst studying fulltime. The response suggested that students saw the benefit in being able to put into practice the skills and knowledge and to gain hands-on experience in the workplace. The few disadvantages listed included concerns that work may interfere with their studies and that they may be made to perform only menial tasks not amounting to worthwhile experience. When asked about the incorporation of unpaid work experience into the undergraduate program the overwhelming response suggested it would be a good idea and a source of invaluable experience.

The 1991 course review by RAPI (now PIA) accreditation board recommended the implementation of practical work experience. In 1996, the department of planning reported to the next accreditation board, the introduction of a two-week practical work experience component incorporated into the second year of the course as part of the Local Planning Practice unit. Due to the buoyant state of planning jobs market in Western Australia, virtually all interested students could find vacation work in the planning field. While the department had committed itself to arrange for the placements for students in the industry, this service was seen largely redundant.

In 2002, the department reported to the professional institute during the accreditation process that planning programs at Curtin University did not include work experience. However, experiential learning programs had been developed to expose students to planning practice, particularly, the learning areas of planning practice, rural and regional planning. The course was described as having a strong practical orientation with many students taking up part-time work in planning practices. Fee structures that preclude government subsidies and the cost of insurance to the university and/ or employers were cited as barriers that ruled out the consideration of work experience units in the future.

Hedgcock (nd:137) reports that a survey associated with the 2002 course review found that stakeholders believed Curtin graduates were adequately prepared for the work force.¹³ Those surveyed consisted of both industry practitioners and academics who were first administered a survey questionnaire and then invited to follow-up focus group discussions. When asked to identify the areas

¹³ Respondents could choose between “unprepared”; “somewhat prepared”; “adequately prepared”; and “well prepared”.

within the course needing strengthening to better prepare graduates for the workplace, a considerable proportion of the respondents nominated “work experience”, “development assessment”, “communication/ negotiation skills”, and “other knowledge”. Hedgcock believes this raises the question of prioritising education versus training. (Hedgcock nd: 137)

While referring to concerns about insurance costs for the university/ employers as reasons for discontinuing work experience units, the 2002 PIA accreditation review recommended that the department of planning should examine the feasibility of introducing a period of formal work experience as part of its undergraduate planning program. It is interesting to note that these reasons continue to be matters of significant concern to this day. The Fair Work Act has recently undergone scrutiny regarding work placements outside the curricula. As a result a working agreement reached with the unions suggests that Curtin University would not pay insurance for students for longer than a two-week unpaid placement. (WIL Committee, 2010).

In response to this direction the department set up a number of practice-based units where the work environment was mimicked within the classroom. Learning outcomes were reflective of the practiced-based skills the professional body had identified as being required by the students. Practitioners were set up along with academics to teach these units which replicated the workplace arena. Real life planning scenarios were introduced and assessments were modeled on activities which would be required to be completed in this simulated work place environment. In this way students were assured of acquiring the necessary practice-based skills. The pedagogy of the classroom environment ensured students adequate instruction and facilitated the emphasizing of the nexus between planning theory and practice.

In 2008, the department reported that work experience component of the unit ‘Professional Practice’ was discontinued as many students were already in paid planning work due to the shortage of practicing planners in Western Australia. The department, however, committed to investigate the feasibility of introducing a formal work placement if industry conditions changed. The 2008 PIA accreditation board’s review recommended that consideration “should be given to the development of a structured, supported work experience within the program.” It was of the view that the university was “well-placed (and has the responsibility) to support students’ entry to workplace, and to meld this into planning education, whether students work while studying or graduate before entering the profession. RPL provision may assist students working full-time” (PIA Visiting Board, 2008)¹⁴

From this review, it is apparent that the incorporation of aspects of WIL into the planning curricula is an on-going concern from at least as far back as 1988. PIA maintains its lobbying for work placements to strengthen the practical skills of graduates. The department generally agrees but is at times constrained by various impediments. We contend, however, that instead of reacting to pressures from the industry or simply aligning to current university policy initiatives regarding WIL, the URP department should broaden its view to assess the situation and ground realities within the planning profession, so as to develop a reasoned and deliberate strategy with respect to defining the role, if any, of WIL components in its courses. We could begin by analysing the conditions within workplace and ways to improve the learning environment it offers. We need to be mindful that simply being placed in the work environment is not in itself any guarantee that beneficial learning will occur. This point is further emphasized by the severe shortage of planners across Australia that has persisted for some time now. Such a situation could make effective mentoring and supervision of student-planners or fresh recruits quite unlikely, unless careful thought and effective strategies are put in place.

¹⁴ RPL stands for Recognition of Prior Learning. RPL provisions allow students to claim exemption from completing certain elements of the course requirements if they could claim to have already gained equivalent knowledge / skill elsewhere – including the workplace.

High Employability or Shortage of Planners?

The National Inquiry (PIA 2004) reported a significant shortage of planners across Australia, “with a vacancy rate over the last 3 years of between 13 – 19%” (PIA 2004:36). It warned of a growing demand for planners in the next five to ten years, even if the economy slowed down (PIA 2004:37). Six years on, the continued demand for planning is evident by the inclusion of ‘urban and regional planners’ in the Skilled Occupation List announced by the Minister for Immigration and Citizenship on 17 May 2010.¹⁵

Planning schools may tend to promote their courses by presenting the shortage of planners as proof of the strong demand for planning graduates in the industry that translates into their guaranteed employability. However, there are some negative implications as well. First of all, the scale and intensity of the shortage also means that students are offered places in the industry before they graduate. While it may be a positive factor in case of students nearing the completion of their coursework, it can be quite disruptive when students in the second and in some cases even in the first year of an undergraduate course are offered jobs. Students could find it difficult to balance workloads and organize their time commitments and priorities between the workplace and the university.

The shortage of planners can also be seen to be “impacting on the morale and image of the profession because of the problems created when the planning system is under resourced.” (PIA 2004:36). This suggests that uncontrolled exposure to inadequately resourced workplaces could be disorientating especially to students in the early years of the course. As reported by PIA (2004:36-38), inexperienced planners are not receiving adequate on-the-job training due to the shortage particularly of experienced planners.

In the face of an acute shortage of planners, workplaces may be keen to employ students for lack of alternatives even when these students may not be sufficiently skilled or educated in the field. An under-resourced workplace that readily employs junior students is not likely to have the capacity to allow senior and experienced professionals to spare time to mentor or train the young recruits or interns. This could result in promoting workplace cultures that are not conducive to promoting or maintaining high professional standards.

The findings of the National Inquiry into the conditions at the workplace have significant implications for the feasibility and scope of utility of WIL. As noted by the National Inquiry, “Planning graduates can get disillusioned with planning because they work in difficult work places and do not receive appropriate supervision and support because of work pressures and shortage of staff.” (PIA 2004: 38).

The PIA accreditation board of 2008 noted with concern “the ‘boom’ in WA, and within planning profession, which sees students working from as early as year one of the undergraduate program” (PIA, 2008:12). It went on to suggest that “Relationships with industry/employers are critical as, mentoring, cadetships, traineeships and other supervision may be needed in employment to recognise that students do not have full sets of skills to practice as professionals” (PIA 2008:13).

Conclusion

As Hunt (2009) warns us, we need to ensure that WIL is not allowed to be used as a gimmick. The short term objective of preparing students for the workplace needs to be balanced against the university’s responsibility of preparing students for life. Indeed Curtin University specifies life-long learning as one of the desired graduate attributes. This highlights the difference between the priorities of the university and the professional institute, as the former takes on a much longer term and broader view of students’ quest for learning.

15 Check the following website: <http://www.immi.gov.au/skilled/general-skilled-migration/pdf/new-list-of-occupations.pdf>

As our findings suggest, the institute of professional planners' demands to include work placements is long standing and consistent. The department's response has been generally positive but, at times, compliance has been hampered by various constraints. The fact that the department of planning did set up a work placement requirement and also undertook finding placements for its students reflects the recognition of planning being a practice-oriented discipline. The shortage of planners has meant that students find paid employment on their own, without any facilitation by the department. While students thereby gain exposure to the workplace, whether or not this satisfies the achievement of any significant learning objective is another matter.

Ideally the WIL model enables a student to put into practice the theoretical learning that they have experienced in the classroom environment. However the work place may not be sufficiently critical in ensuring that the student has a meaningful experience in the WIL process, from the planning theory perspective which would insist on a greater emphasis on including substantive issues and broader equity considerations than what practice would normally require. In the context of planning this divergence carries a significant historical baggage and there remains a degree of skepticism between the academia and planning practitioners. Many of the controversies and debates raging since its inception as a discipline lie at the core of defining what the role of the planner should be or what it really is. Charles Lindblom, for example, contrasted what planning was deemed to be in theory to how it was practiced. Such unresolved debates may leave the professional practitioner skeptic towards the role of theory, as rather than informing practice, they seem to increase the murkiness surrounding the role of the planner. Conversely, some academics could view practitioners work as incrementalist as Lindblom suggested. For students with limited perspective on both theoretical concerns as well as the pragmatic constraints of the profession, this could present confusion unless properly tackled.

In relation to WIL the workplace environment is supposed to complement, even if not replace, the lecture hall and studio for learning activity. It is crucial then that the environment is conducive to learning through experience. Students are supposed to pick up practical aspects of the work culture and benefit from exposure to professional practice. In the process they expect to be mentored where required as, over time, they develop the skills and their confidence in applying them. This kind of learning environment, in essence, is the benefit that well structured WIL can provide and which the university cannot. However, when there is undeniable evidence suggesting that the workplace is stressful and unable to provide the required learning environment or mentoring support (as extensively reported in PIA's 2004 National Survey), the potential advantage of workplace learning – whether simple work placement or WIL, could easily turn into disadvantage.

The stressful conditions at workplace due to shortage of planners could see best practice replaced by *ad hocism* at times. This would not be conducive to learning by observation. Besides, a dearth of experienced planners would nullify the opportunity of mentoring by peers that the workplace would normally offer. Instead, as warned by the National Inquiry, the stressful working conditions could cause disillusionment among those entering the profession. This would also equally apply to students on placements.

It may be tempting to suggest to the professional institute to give up their demand for work placement – till such time as conditions within the industry improve. This would not solve the problem of the shortage nor will it improve students' learning and we would miss out benefits that a well-structured WIL could deliver. WIL has a definite role to play in preparing job-ready graduates and educating students in areas where the theory-practice gap occurs. However, there is a need to regulate the process to ensure that the employer can provide a work environment that is conducive to WIL and one which could not only improve their efficiency in delivering job related tasks but also expose students to wider philosophical debates. It is vital to ensure that learning is linked firmly within the learning environment to provide a richer learning experience.

Recommendation

How could we go about designing and implementing WIL components into the curricula while ensuring that the conditions at the workplace do not negate the desired objectives? A three-way partnership regarding WIL between the university, employer and the student, as suggested by many Australian universities like Monash, should be seen as the first step towards the solution. As required by the three-way model, clearly defined roles and motives for each party need to be set up and agreed upon. There needs to be formalized contractual obligations for performance for each party. However, the enormity of the task of monitoring the implementation of such a model must be acknowledged and assessed.

To start with, in order to maximize the potential benefits from WIL, effort should be made to concentrate on coverage of areas or tasks where the gap between theory and practice is most pronounced. The curriculum needs to build in specific provisions to ensure that learning within the lecture hall as well as in the workplace is properly integrated within overall learning. Students should be introduced to theoretical principles at school in the form of pre-learning before being sent to the workplace to observe and/ or engage in the practice. There should also be a recapping of the learning from experience at the workplace built into the curriculum whereby students engage in post-learning reflection.

Potential obstacles, in the shape of conditions prevalent at the workplace need to be tackled. There need to be put in place specific clauses within the three-way agreement to protect students from potential threats and dangers emanating from poor working conditions. These could focus on ensuring that student work carried out as part of WIL is not confused with paid work and that each student is entitled sufficient access to a mentor. This would require that mentoring be written into the job description of senior staff at the workplace. Above all, the enormity of the effort required to put in place effective WIL may be reduced considerably by applying principles of student-centred learning. Assigning learning-related responsibility to students and making them aware of their rights and responsibilities within the agreement model would serve to empower students to fend for their own learning interests.

As an equal stakeholder in the process with clearly defined rights and responsibilities students could protect themselves from being assigned menial jobs or assigned roles they are not capable of undertaking. Students could also be expected to insist that their WIL experience does provide the expected learning benefits as stated in the agreement. With a three way contractual agreement, both the employer as well as the university could also hold students responsible for maintaining a balance of commitment and priorities between university course obligations and the demands of their workplace.

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Achieving successful Work Integrated Learning (WIL) for students with disabilities: The challenge of social inclusion

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Social inclusion for people with disabilities in Higher Education generally and Work Integrated Learning (WIL) activity specifically, is a major and looming challenge for Australian Universities. Higher Education providers face an increase in equity numbers and will see a rise in students with disabilities wishing to access WIL. The new world of work will want to see graduates possess the employability skills to be work and industry ready. Taking social inclusion seriously will mean confronting the challenges of supporting students with disabilities to successfully undertake WIL activities. This paper presents the key issues and emergent policy directions now occurring within one Australian University.

Keywords: Disability, students, work integrated learning, support

Introduction

Australia faces the challenge of labour and skills shortages, and all sectors of education have been asked to respond (McLennan & Keating, 2008). WIL is an opportunity for education providers to improve work readiness for all graduates, hence approximately 20 Australian publicly funded universities are embracing Work Integrated Learning (WIL) (Jancauskas, Atchison, Murphey & Rose, 1999) as the key strategy to meet demands from governments, industry, professions and the community to produce a 'work-ready' professionalised workforce with the requisite 'employability skills' that can meet the needs of a rapidly changing economy (Patrick, Peach, Pocknee, Webb, Fletcher & Pretto, 2008).

A key component of WIL is the provision of both academic and industry supervisors, who play a pivotal role in facilitating the student's learning by integrating the university and workplace experiences. According to Jancauskas, Atchinson, Murphey and Rose (1999), academic supervisors assist the student in setting learning objectives; assisting the student to develop self-learning skills and strategies; identifying and resolving conflicts; and assessing workplace performance. Industry supervisors orientate their students into the organization; set clear work objectives and assist with setting learning objectives; monitor work performance, identify weakness; and organize training or learning opportunities (Jancauskas et al., 1999). It has been acknowledged that both academic and industry supervisors are not well prepared for their roles and it has been acknowledged that there are 'serious deficiencies of work-integrated learning programs in Australia' (Jancauskas, et al., 1999, p. 2).

The Bradley review of Australian Higher Education is recommending national targets of at least 40% of 25-34 year olds attain qualification at bachelor level or above by 2020. According to the Australian Institute of Health and Welfare (2009), 'One in five Australians experiences an activity limitation or participation restriction that can be broadly classified as disability' (Australia Institute of Health and Welfare, 2009, p.139). In fact, 4.02% of the Australian Higher Education student population is represented by people with disabilities¹⁶ (Patrick, et al., 2008).

Social inclusion for people with disabilities in Higher Education accessing WIL is a major challenge for Australian universities. This paper introduces the reader to the notion of 'inherent requirements' in relation to WIL; education provider responsibilities for students with disabilities through the Disability Discrimination Act (1992); key issues such as accessibility to WIL, disclosure, inherent requirements, and support needed when implementing WIL for students with disabilities; and emergent policy directions now occurring within one Australian university. The discussion will be set within a review

¹⁶ Refer to appendix A for legal definition of disability according to Disability Discrimination Act 1992

of relevant national and international literatures. The paper argues that it is imperative educational providers have strategies in place to be able to support students with disabilities wanting to undertake WIL. However, the difficulties of realising socially inclusive approach should not be underestimated (McIlveen, Brooks, Lichtenbury, Smith, Torjul & Tyler, 2008; Patrick et al, 2008).

Approach

This paper is a result of an examination of the challenges associated for students with disabilities undertaking WIL as part of their program within the Higher Education settings. The manager of the Disability Liaison Unit (DLU), Rick Boffa, together with John Milton from the WIL working party, recognised a need for the university to consider these challenges as the university is embracing WIL as a key strategy to produce graduates with the requisite employability skills.

Members of the WIL working party (consisting of a number of representatives from various colleges within the university) were approached by Rick Boffa and Luella Leon from the DLU to put forward a proposal to develop guidelines for academics to assist students with disabilities and long term medical conditions for successful WIL outcomes. Associate Professor Martyn Jones from the Design and Social Context College demonstrated his interest and following this, a proposal was put forward to the Learning and Teaching Committee of the School of Global Studies, Social Science and Planning (GSSSP). Together with the Disability Liaison Unit, a steering committee was formed and consisted of Associate Professor Martyn Jones (from the discipline of Social Work), Michael Emslie (from the discipline of Youth Work) and Dr Jose Roberto Guevara (from the discipline of International Studies).

The steering committee met several times to identify the issues associated with WIL activities for students with disabilities, initially in relation to placements; however this was extended to cover all WIL activities. In examining the obligatory requirements of education providers in relation to disability legislation and standards, together with Australian and International literatures, a set of solutions were identified to address the issues stated in this paper. These formed the guidelines in which the disciplines of Social Work, Youth Work, and International Studies are to use in a pilot project. The aim of the pilot is to assess the effectiveness of the guidelines within these disciplines and then apply the guidelines throughout the university, thus establishing future policy directions. As the university embraces WIL alongside the complex nature of disability, it has been recognised that the issues and solutions presented in this paper are not definitive, but rather a 'work in progress'.

Disability Standards for Education

Although the Disability Discrimination Act defines 'inherent requirements' within a vocational context, in relation to education, the Disability Standards for Education (2005) state that education providers must take reasonable steps to ensure that a student with a disability is able to participate in a program or course 'on the same basis as a student without a disability, and without experiencing discrimination' (Disability Standards for Education, 2005, p.15). In doing so, the provider must consult with the student as to whether or not the student's disability affects their ability to participate in the program/course and determine whether an adjustment is necessary to enable the student to participate and learn (Disability Standards for Education, 2005). In relation to WIL activities, the legislation ensures that:

course delivery modes and learning activities (including those not occurring in a classroom or activities that are part of the broader course or educational program of which the course or program is a part) take account of the learning capacities and needs of the student and are sufficiently flexible for the student to be able to participate. Where a course includes an activity in which the student cannot participate, an alternative activity is offered that provides an equivalent experience within the context of the overall aims of the course.

assessment procedures are adapted to enable the student to demonstrate the knowledge, skills or competencies being assessed. (Creating Accessible Teaching and Support, 2009; Disability Standards for Education, 2005)

When implementing reasonable adjustments, there must be consultation with the student, WIL coordinators and academics on a case by case basis. Education providers must consider whether or not an alternative (in some cases) will compromise the academic integrity of the course and must consider all the facts to balance the student's needs with the inherent requirements of the course. The Disability Standards for Education (2005) state that education providers are

entitled to maintain the academic requirements of the course or program, and other requirements or components that are inherent in or essential to its nature[...]a provider may continue to ensure the integrity of its courses or programs and assessment requirements and process, so that those on whom it confers an award can present themselves as having the appropriate knowledge, experience and expertise implicit in the holding of that particular award. (Disability Standards for Education, 2005, p. 11).

Having said this, there are exceptions in which education providers can refuse to carry out their obligation under the Disability Standards for Education (2005). Discrimination is allowed in the following situations:

Unjustifiable hardship

the nature of the benefit or detriment likely to accrue or be suffered by any persons concerned; and

- (b) the effect of the disability of a person concerned; and
- (c) the financial circumstances and the estimated amount of expenditure required to be made by the person claiming unjustifiable hardship; and
- (d) in the case of the provision of services, or the making available of facilities— an action plan given to the Commission under section 64 of the Act. (s.10, p. 26).

Protection of public health

These Standards do not render it unlawful for an education provider to isolate, or discriminate against, a student with a disability if the disability is an infectious disease or other condition and it is reasonably necessary to so isolate or discriminate to protect the health and welfare of the student with a disability or the health and welfare of others. (s.10, p. 27)

Special measures

These Standards do not render it unlawful for an education provider to provide special measures (including specialised units or institutions) intended specifically for the benefit of students with disabilities. [...]

special measure means an act mentioned in section 45 of the Act.

Note: Special measures are intended specifically for the benefit of students with disabilities, and can take the form of programs or initiatives that afford students with disabilities, or with a particular disability, benefits, grants, programs, goods, or access to facilities, services or opportunities to meet their special needs in relation to education and training. However, providing specialised support services will not necessarily be sufficient to eliminate discrimination. (s.10, p. 27)

The RMIT University Experience

According to RMIT University statistics, 2009 enrolment information revealed that approximately 1400 students identified themselves as having a disability and approximately a third of these students were known to the Disability Liaison Unit. In examining the issues when designing WIL activities and balancing the student's needs, it is evident that there are no simple solutions and many factors need to be considered on a case by case basis. The need for these considerations has been recognised at RMIT University.

It is clear that balancing the inherent requirements of a course with the needs of the student with a disability has its difficulties. In determining reasonable adjustments for students with disabilities for WIL activities, a number of issues need to be considered in order to support the student whilst maintaining the academic integrity of the course. Such issues include accessibility to WIL, disclosure, inherent requirements, and support.

Accessibility to WIL

Issue

The difficulties for students with students with disabilities to access WIL have been documented. It has been identified that a number of reasons prevent students with disabilities accessing WIL, such as availability of placements, engagement, and entrenchment of disadvantages (Partick, et al., 2008). All stakeholders need to ensure that students with disabilities are not disadvantaged in placement programs and have access to quality WIL activities that are satisfying (Partick, et al., 2008). To facilitate this, education providers need to ask several questions:

1. What are the ramifications for this student cohort when selection of WIL activities is based on 'the best and brightest'? Will equity targets also apply?
2. If programs are requiring students to undertake WIL in order to obtain a qualification, are alternatives possible if the student is unable to fully perform the requirement?
3. What methods are there in sourcing placements for students with disabilities? Is a range of methods possible as opposed to relying on one method?
4. How does equal opportunity and anti-discrimination play a role in WIL?
5. To what extent is the university required to secure placement site that can offer 'reasonable adjustments' for an enrolled student with a disability?
6. Should the education provider aim to engage relevant industry sectors in determining an acceptable framework for providing WIL opportunities to students with disabilities? If so, how might the education provider do this?

Discussion of issue

Students with disabilities have the right to access WIL on the same basis as other students. The Disability Standards for Education (2005) states that an education provider 'must take reasonable steps to ensure the student is able to participate in the courses or programs provided by the educational institution [...] decide whether or an adjustment is necessary to ensure that the student is able to participate in the courses or programs provided by the educational institution' (Disability Standards for Education, 2005, s.5, p. 15). Given that WIL is a component of a program, it reasonable to assume that adjustments can be made for WIL, thus making it accessible to students with disabilities.

A concern arises when the selection of WIL activities is based on 'the best and brightest'. To assist students to adequately prepare for WIL activities, a co-ordinated approach needs to take place between the WIL coordinators, the DLU, and the Career Development and Employment (CD&E) service. This

process has the added benefit of assisting the student to prepare for their careers, which is commensurate with the aims of WIL, in that it aims to equip students with the skills and knowledge to perform in their chosen area of work.

Education providers are required to secure placement sites that can offer reasonable adjustments for an enrolled student with a disability, the key being *reasonable*, where ‘an adjustment is reasonable in relation to a student with a disability if it balances the interests of all parties affected’ (Disability Standards for Education, 2005, s.3, p. 10). The standards clearly state that an education provider is not required to make unreasonable adjustments. If a student is unable to undertake a particular WIL activity such as a placement, the education provider should be asking themselves whether or not there is an alternative WIL activity. The section on inherent requirements addresses this question.

One question raised earlier in relation to accessibility was whether or not education providers should aim to engage relevant industry sectors in determining an acceptable framework for providing WIL opportunities to students with disabilities and how this could be achieved. In theory, it would be very beneficial to engage relevant industry sectors and could be achieved through programs that seek out employers to take on students with disabilities for internships such as Stepping Into... program which is organised by the Australian Employers’ Network on Disability or for mentoring, such as the Willing And Mentoring (WAM) program run by Deakin University. These avenues may also provide another way of sourcing WIL activities in addition to those methods already established.

Disclosure

Issue

Disclosure of disability is a major decision faced by students with disabilities when enrolling in a program, when undertaking their studies, and finding employment. To disclose means to reveal or provide information to the public that was previously unknown.

Disclosure in a tertiary setting is about ensuring that students with a disability have access to the range of adjustments available to them and may mean any of the following (Australian Disability Clearinghouse on Education and Training, 2009):

- Educating someone about a disability or medical condition.
- Telling someone about the impact of disability or medical condition on study.
- Telling someone how an individual does things successfully.
- Telling someone their learning style.
- Providing documentation about disability or medical condition.
- Talking to another student about disability or medical condition.

Students with hidden disabilities have a choice as to whether or not to disclose (Wray, Fell, Stanley, Manthorpe & Coyne, 2005). Some students are reluctant to disclose their disability for a number of reasons. Such reasons include discrimination, attitudes (e.g. fear that their disability may provoke curiosity or unnecessary concern in others), and other reasons (such as the disability not impacting on their study; the fear of being stigmatised and treated differently from others; the concern about being seen less ‘appealing’ to academics, placement agencies, and industry professionals; and the concern about being perceived as ‘extra work’) (Mungovan & Quigley, 2009; Wray, et al., 2005).

Given this, several issues arise when examining WIL for students with disabilities; hence academic and professional staffs need to consider legal, ethical and professional factors, such as the following:

- Non disclosure by student when field education staff, WIL co-ordinators, academics believe it is required.
- Disclosure permitted by student to relevant academics and staff, however the student does not wish for the information to be passed on to an external agent/industry representative.

- Incidents that occur while carrying out WIL activity as a result of non-disclosure from the student.
- Privacy legislation in relation to negotiating permission to disclose the student's disability.
- Duty of care issues in relation to the student and others. Education providers must ask themselves 'what are the factors (legal, ethical, professional, etc) that need to be taken into account when determining how best to proceed? What processes would encourage an acceptable way of approaching a situation that involves a consideration of duty of care?'

Discussion of Issue

In achieving successful Work Integrated Learning for students with disabilities, it is paramount that a conversation about disclosure to third parties occurs between the student, academics, and WIL co-ordinators as soon as a student discloses their disability (preferably early in the student's program) to the education provider, as it is illegal for education providers to impute disability (Disability Discrimination Act, 1992). Disclosure to the school may occur through the DLU, in which case WIL co-ordinators, placement officers and academics are in a better position to initiate contact with the student to discuss disclosure to third parties and the impact of the student's disability on the WIL activity, or the student may disclose to the school through other means. For example, the disciplines of Social Work and Youth Work at RMIT University require students to complete a form that asks whether the students have a condition or disability (amongst other circumstances) that may impact on their placement. If a student discloses to the school through this avenue, the education provider should encourage the student to register with the DLU to initiate Reasonable Adjustments to create opportunities for further discussions about disclosing to third parties.

Given that some students may be reluctant to disclose to third parties for the reasons stated earlier, academics, and WIL co-ordinators need to discuss the limitations of non-disclosure and the impact on students. Furthermore, disclosure is a very sensitive issue for some students, and therefore education providers need to take great care when discussing the issue with them, and advise students that disclosing to third parties will not lead to discrimination. Not all information about a student's disability may be relevant to the WIL activity and therefore certain information should only be passed on a 'need to know' basis (Department for Education and Skills, 2002).

To reduce some fears associated with disclosing to education providers and third parties, educators could consider adjusting their teaching and curriculum to include topics such as confidentiality, privacy, record keeping and an introduction to privacy legislation. Youth Work students at RMIT University are introduced to this prior to placement, and therefore have an appreciation of disclosure and related issues with regards to negotiating placement, such as their rights in handling personal information.

In discussing non-disclosure to third parties, the education provider needs to outline the potential issues that could arise from not disclosing. For example the student may not be permitted to undertake a WIL activity if there are 'duty of care' issues or OH&S issues. In this instance, the Department for Education and Skills (2002) and Wray, et al. (2005) suggest that education providers should explain to the student the seriousness of the issues, its implications if non-disclosure occurs and that the information must be passed on because of the risks involved. Hicks and Swain (2009) support this in their examination of field education placements within social work field education. They suggested that 'the duty of care to the student necessitates an obligation to disclose risks and potential harms about which the student needs to be able to make an informed decision before a placement is confirmed. Such risks - to students, agencies and their clients - almost inevitably flow from the right to inclusion of the formerly excluded' (Hicks & Swain, 2009, p. 83). Furthermore, The Disability Standards for Education (2005) stipulate that discrimination is allowed where an education provider has to discriminate to protect the health and welfare of that person or other people. Given the multi-faceted nature of this issue, academic staff, WIL coordinators and placement officers should seek advice of both the DLU and the university's health and safety officers (Wray, et al., 2005).

In discussing disclosure, there needs to be an agreement between the student and the education provider that disclosure will occur, how the information will be disclosed, to whom it will be disclosed to, how the information will be used, and where/how the information will be stored. Disclosure is a process that involves negotiation and should not be mandatory, providing that the student is well informed of the pros and cons for both disclosure and non-disclosure; the responsibilities of each party are clearly stated; and that there is agreed plan of action that takes into consideration possible scenarios.

Inherent requirements

Issue

Inherent requirements are those core or essential requirements that students must complete as part of the program/course. They are those components that if they were removed or substituted by an alternative, the learning impacts would be significantly compromised (Australian Disability Clearinghouse on Education and Training, 2010).

Given the complexities that surround inherent requirements, it is clear that inclusion for students with disabilities raises several issues. For example, in Social Work, it is commonly through the work placement that a student's capability to meet the professionally required Practice Standards is assessed most directly. In the case of students with disabilities, how can education providers ensure that they evaluate equitably the student's capacity to meet the inherent requirements of an academic program in which such practice standards apply? What processes do education providers need to have in place to ensure a student is never 'set up to fail'? Is it possible for education providers to provide an alternative form of assessment for student's with disabilities that are unable to complete the requirements of the WIL activity?

Discussion of Issue

Watts, Stickels, Fraser, Carroll, Stewart & Radloff (2000) undertook a project to develop guidelines to assist university staff to understand and make clear the inherent course requirements to eliminate barriers for students with disabilities and long term medical conditions so that the students are given opportunities to participate fairly and equitably in education. They recognised the difficulties that arise when students with disabilities are required to undertake a practical component of the course (e.g. field placement) where the student's condition/disability has the potential to conflict with professional requirements/ registration bodies. They argued that an interpretation of the Disability Discrimination Act (1992) 'makes it clear that 'Qualifying and vocational bodies may refuse to authorise or to qualify a person with a disability, if because of the person's disability, the person is unable to carry out the inherent requirements of the trade or profession (s 19). Educational authorities are not able to pre-empt the decisions of the qualifying body' (Acting Against Disability Discrimination manual, 1994, cited in Watts, et al., 2000).

This leads to the question of whether or not an alternative can be substituted for a WIL activity. For example, if a student is unable to do a placement, are they able to substitute this with an industry based project that meets the learning outcomes of the placement? Before an education provider can decide whether or not an alternative is an option, they must examine all the alternatives to see if the learning outcomes are compromised. If the academic integrity is compromised by an alternative, the education provider needs to clearly state the reasons why this is the case to avoid allegations of discrimination, and the student must undertake the activity. If there is no alternative, education providers must ask themselves 'are we setting up these students to fail?'

The student is less likely to fail if the education provider has done all that it can to educate the student about the program requirements and WIL activities early on, preferably when the student has

commenced their program. For example, first year students with a disability, register with the Disability Liaison Unit (DLU) to discuss Reasonable Adjustments (RAs) in relation to WIL activities. The RAs are implemented and the school is to identify those students required to undertake WIL activities in their program. The school (e.g. WIL coordinator), together with a Disability Liaison Officer / Disability Advisor should meet with the student and discuss the issues of disclosure, the nature of the WIL activity and what the university can reasonably do to support the student. It is in this discussion that the student can be made aware of potential difficulties and registration implications. The student can make a decision as to whether or not they wish to continue with the program.

Universities have demonstrated their commitment in maintaining high education standards in the design, implementation, and assessment of their programs to prepare students with the necessary competencies for the world of work (Watts, et al., 2000). In some instances, there are additional competencies that students are expected to achieve which are not set out by universities, but rather by registration bodies, particularly in areas of Social Work. For example, the Australian Association of Social Workers has Practice Standards which include the main areas of social work practice. Such standards include 'Direct Practice', which 'concerns every aspect of direct social work. It draws on all of the core areas of social work knowledge and skills' (Australian Association of Social Workers Practice Standards, 2003, p. 7) It is common practice that students are assessed as being able to achieve these competencies directly through a WIL activity such as a work/field placement (Razak, 2000 cited in Hicks & Swain, 2007).

In the case of students with disabilities the education providers must ensure that they evaluate equitably the student's capacity to meet the inherent requirements of an academic program in which such practice standards apply. Watts, et al. (2000) produced guidelines and procedures to assist universities to examine the inherent requirements for their courses and suggested that education providers should ask themselves a variety of questions to determine the essential requirements of the courses. One question of interest particularly with WIL and registration requirements is 'What skills/abilities/knowledge must a student demonstrate to complete the unit/subject ie the outcomes (eg. Cognitive, technical, interpersonal communication etc)?' (Watts, et al., 2000, p. 39). They suggest that the education provider needs to distinguish the difference between essential and desirable outcomes:

Usually a course will comprise some compulsory/core units/subjects. The current status of a unit/subject, especially where it is based on professional requirements, may not necessarily render it essential to the course. The decisions about what constitutes the essential elements of a unit/subject and consequently the course, are a matter of academic judgement, and must be **justifiable** on other than **historical** or **employment-based** grounds. Requirements imposed by external agencies (eg professional bodies, registration boards, external fieldwork agencies etc) are only important if they are essential to the academic course (as determined by university academic staff) (Watts, et al., 2000, p. 39).

Support

Issue

Providing reasonable adjustments for WIL activities is seen in various forms, ranging from changes in the work schedule (e.g. regular rest breaks, shorter work days) to the implementation of assistive technology. Providing that the reasonable adjustments do not compromise the academic integrity of the course, education providers are required to implement the adjustments. This raises several questions:

- Who is responsible in directly supporting the student? Is the Disability Liaison Unit (DLU), the field placement officer, relevant academics, agencies, or industry professional?
- Who provides advice and support to placement organisations? Is it the DLU, or the field placement officer and relevant academic staff?

- Inclusive teaching pedagogy to foster access and support learning for students with disabilities. Who is responsible for this in relation to placements (DLU, student, field education staff, and industry)? How is this supported and managed? What role does the education provider have? Are the student's aware of this?
- Students having the right to fail. What does this mean?
- Given that both academic and industry supervisors play a pivotal role in facilitating the student's learning through WIL, how are they supported?

Because, the complexities surrounding WIL and students with disabilities are varied and multi-faceted there are no easy solutions to these issues. Each situation is dependent upon many variables and a case by case approach should be implemented.

Discussion of Issue

Providing reasonable adjustments can take many forms depending upon the impact of a disability. Because there are various parties involved when organising WIL activities, the question of responsibly arises when providing support. For example, if a student is required to undertake co-operative education, and they are in need of a lot of support, for example a student with vision impairment needing assistive technology, it is the responsibility of the placement agency to put this in place as they would for an employee with the same needs. Placement agencies can access workplace modification schemes to implement equipment etc. at no cost through the federal government. However, the area of disability employment is constantly changing and the JobAccess website (<http://jobaccess.gov.au/Home/Home.aspx>) which informs employers and jobseekers about such schemes should be used to obtain further information. In order for the student to experience an appropriate, satisfying, and valuable experience, it is recommended that the DLU meet with the student, academics and the WIL co-ordinator well in advance to discuss reasonable adjustments needed for the WIL activity, and provide advice on disability related issues. In doing so, WIL co-ordinators and academics are able to communicate the needs of the student to external parties, providing that consent has been given by the student. Academics are also recommended to implement monitoring procedures, and periodically monitor student's progress to provide feedback to student in relation to WIL activities. By doing so, valuable information can be obtained through both the student and the agency/employer.

It was mentioned earlier that both academic and industry supervisors are not well prepared for their roles, indicating that there is a lack of support for academic and industry supervisors when facilitating the student's learning through WIL. This issue can be addressed by ensuring that the DLU, the student, and academics meet early to discuss the issues noted in this paper, as stated previously. In doing so, the DLU is supporting the academics, and the academics in turn support the third party (e.g. agency, employer etc.) through the knowledge that they have obtained in speaking to the DLU. Essentially, the core relationships are between the student, academics, WIL co-ordinators.

In saying this, when considering all the support and adjustments made for the WIL activity, students have a right to fail. That is, they are allowed to fail if they are unable to carry out the requirements of the WIL activity despite having adjustments in place. Due to the fear of being accused of discrimination, at times education providers deem a student competent when they are not. In many cases, this scenario is a 'reality' check for the student, in which case they would need academic counselling.

Conclusion

There has been little attention paid to the implementation of WIL for Higher Education students who have disabilities, and the role that the Disability Standards for Education (2005) play in implementing

WIL activities for this student cohort. Given this, education providers must consider various issues to increase the likelihood of achieving successful WIL for students with a disability.

Representatives from Social Science, Youth Work, and International Studies disciplines of RMIT University consulted with the Disability Liaison Unit and identified a number of issues of which academics need to be aware when implementing WIL for students with disabilities. The main issues identified include accessibility to WIL, disclosure of disability to third parties, inherent requirements, and support. The paper identified a number of solutions that will see emergent policy directions for RMIT University. It has been recommended that the WIL coordinators meet with the DLU and the student early in the program to discuss the pros and cons of disclosing the student's disability to third parties, duty of care issues (when appropriate), how the student's information will be used and stored by third parties, and include this topic within the relevant curricula. The WIL co-ordinator/academics also need to ask themselves a number of questions to examine the inherent requirements of the activity to determine whether or not a student is able to participate in WIL and consult with the DLU to determine the legal implications of the Disability Discrimination Act (1992) and the Disability Standards for Education (2005) to ensure equitable access to WIL. It has also been identified that WIL co-ordinators encourage students to access the career services within the university to assist the student to prepare for WIL, and to access mentoring programs other programs (for example, the Stepping Into.. program) to increase accessibility to WIL. The project also identified that there needs to be a signed agreement from all parties that outlines the responsibilities of each party to support the student to successfully complete the WIL component of their program.

As education providers embrace WIL as a key strategy to produce competent, work-ready students and increase their equity targets which will result in an increase in participation from students with disabilities, taking social inclusion seriously will mean confronting the challenges of supporting students to successfully undertake WIL activities. Given this, it is imperative that WIL coordinators and academics develop collaborative relationships with the DLU to discuss the issues as soon as possible on a case by case basis. The key to achieving a successful WIL for students with disabilities is to have an awareness of the issues. To be aware, provides the opportunities for education providers to address and overcome the challenges experienced when accessing WIL.

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Appendix A

Definitions according to the Disability Discrimination Act (1992, s.4)

"disability" , in relation to a person, means:

- (a) total or partial loss of the person's bodily or mental functions; or
- (b) total or partial loss of a part of the body; or
- (c) the presence in the body of organisms causing disease or illness; or
- (d) the presence in the body of organisms capable of causing disease or illness; or
- (e) the malfunction, malformation or disfigurement of a part of the person's body; or
- (f) a disorder or malfunction that results in the person learning differently from a person without the disorder or malfunction; or
- (g) a disorder, illness or disease that affects a person's thought processes, perception of reality, emotions or judgment or that results in disturbed behaviour; and includes a disability that:
 - (h) presently exists; or
 - (i) previously existed but no longer exists; or
 - (j) may exist in the future (including because of a genetic predisposition to that disability); or
 - (k) is imputed to a person.

To avoid doubt, a **disability** that is otherwise covered by this definition includes behaviour that is a symptom or manifestation of the disability.

A study on exploring the expansion of IT WIL programs into non-IT organisations

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The Faculty of Information Sciences and Engineering (ISE), University of Canberra, has long been involved with WIL programs. The Faculty previously relied on Federal Government agencies and large IT companies for placements, where IT professionals mentored our student interns on both generic and technical skills. Several problems were encountered with this approach, including a limited number of intern placements, the unwillingness of some institutions to take on students, and the restriction of international students being accepted by these institutions. However, if we view WIL as a conduit assisting the learning outcomes for our students and simultaneously fulfilling a community need for IT skills then a somewhat different scenario arises. On the one hand, the Canberra community, especially charity and non-profit organizations place a huge emphasis and rely on IT skills for their successful operations even though their core business may not be IT oriented. On the other hand, our students have developed the required IT skills and are keen to practice their skills in real world environments. To satisfy all these stakeholders, ISE has recently expanded its WIL programs into these non-profit organizations. This arrangement has been very well received by the organizations involved, the university, and the students. Expanding IT WIL programs into non-IT organisations benefits both our students and the Canberra community. It opens a whole new world of abundant WIL placements. More importantly, charity and non-profit organizations have no visa or citizenship restrictions and this provides great opportunities for our international students. Regardless of whether students were placed in the traditional IT industry where IT mentoring was available or in non-IT organisations their learning outcomes were the same. However with the change in industry venues new challenges have arisen including relationship management, minimum safety standards, pre-learned technical and mentoring skills etc. This ISE internship program will be improved as a result of continuous stakeholder evaluations.

Keywords: WIL assessment, WIL placements, community engagement

Introduction

The ISE at the University of Canberra has been involved in running internships for a number of years. For the purpose of this paper, we use the terms work integrated learning (WIL) and internship interchangeably. The students who participate in the WIL program are referred to as interns while the organization which offers a WIL placement to students is referred to as the intern hosting organization. WIL experiences provide an important step in preparing students to become work-ready with such experiences reducing the gap between one's "*academic present and their professional future*" (Martin & Hughes, 2009:8). As such, WIL has been recognized as "*an umbrella term for a range of approaches and strategies that integrate theory with the practice of work within a purposefully designed curriculum*" (Patrick, Peach, Pocknee, Webb, Fletcher and Pretto, 2009:IV) which provide learners with opportunities for work preparedness. In today's working world, both business and governments consider work readiness as a "*strategic priority*" (Richardson, Kaider, Henscheke and Jackling, 2009:336) with the main aim of WIL to produce work-ready graduates with a combination of content knowledge and employability skills, such as communication, team work and problem solving skills, which enable effective professional practice to take place. Many theorists suggest that WIL is a form of "*authentic learning*" or a "*participation model*", where students participate in the actual work within a professional community (industry, employers and the professions) and engage directly in the target community (Radinsky et al., 1998, p. 407). Given this context of authentic learning, this paper focuses on such approaches that recognise different stakeholder contributions and needs that are

mutually beneficial to all parties involved. The community referred to is stakeholders - they are individuals or organizations that participate in or impact on WIL (university staff, university students, employers and government). These include not-for-profit organizations', peak and professional bodies, government and non government organizations.

The ISE faculty has previously relied on Federal Government agencies and large IT companies for internship placements. Within these organisations there are large numbers of IT professionals with different skill sets who perform at a variety of different levels. Students were mentored and were exposed to and applied both generic and technical skills. However these arrangements did have problems:

The numbers of intern placements were restricted to the capacities of these institutions. This was far from being adequate in providing sufficient placements for our domestic and international ISE students.

The unwillingness of some of these institutions further restricted the number of intern placements. It was almost impossible to place international students with these institutions, due to the requirements of Australia citizenship and sometimes security clearance, even though the internship program is a major and an attractive marketing factor for international students to study ISE at UC.

If we investigate the internship placement situation from a different angle a different landscape evolves. On the one hand, the Canberra community, especially charity and non-profit organizations, have huge demands for IT skills. Although their core business is not necessarily IT oriented, they all heavily rely on the IT infrastructure for their operations. On the other hand, our students are developing all the required IT skills at university and are keen to practice these skills in real world environments. As a result, from Semester 1, 2009, ISE expanded its WIL programs into charity and non-profit organizations. This arrangement was very well received by all stakeholders with advantages including:

- Mutual benefits for both the ISE students and the Canberra community.
- Good reputations being fostered with the ISE students, the ISE, and the UC.
- Almost unlimited internship placements. Since semester 1, 2009, we have witnessed more intern hosting organisations than intern applicants.
- The fact that charity and non-profit organizations have no visa or citizenship restrictions. This arrangement provides great opportunities for international students.

However, there are a few unanswered questions brought about by this arrangement at this stage, which need thorough investigation. These include:

- The lack of IT professionals in the intern hosting organisations, which means technical skills mentoring is almost impossible, although generic skills appear to remain equivalent with traditional hosts. It also is not very clear at this stage how significant such technical skill mentoring is. Without technical skills mentoring, it is not very clear if an intern can achieve the same level of learning outcomes, as prescribed by the University Handbook, "Outcomes from this unit include real world professional experience linking the knowledge gained in the course with industry work practices".
- How much technical skill mentoring is needed from academic staff members for interns to work in these charity and non-profit organizations?
- How often self-development skills need to be practiced and improved for an intern to work technically independently in a charity or non-profit organization?
- Which is the better grading scheme – HD (High Distinction), DI (Distinction), CR (Credit), and P (Pass) or just a simply an ungraded pass?

Both intern hosting organisations and interns have expressed the desire to spend more time with the WIL program. However it is unclear the impact on course learning outcomes if we allow a student to spend more time on WIL placements at the expense of coursework.

In the remainder of this paper, we will use 2 case studies in an attempt to address these questions and in so doing reflect on our experiences.

The remainder of the paper proceeds as follows. Section 2 introduces the related work. Section 3 briefly explains the WIL program at the Faculty of Information Sciences and Engineering, University of Canberra while Section 4 provides 2 case studies. The conclusion provides a summary of this current paper.

Related work

Stephen Billett in 2001 argued that a worthwhile WIL placement occurs where learning environments provide learners with many opportunities to apply theory, to practice their skills to gain a professional identity and experience the world of work while gaining a cultural awareness of their profession (Billett, 2001). Similarly a worthwhile WIL experience requires all stakeholders ie university staff, students and employers to communicate and work towards a shared understanding of the purpose of the students experience and how each of their different roles contributes and impacts on quality. Bates (2005) notes there are three functions that organisations need to bring to the process of WIL. These are an administrative function, a supervisory function and finally the individual development of the student. Bates (2005) also notes, student supervision in the workplace learning environment is paramount to a WIL success. Supervision is defined as “the process by which a suitably trained professional is given the authority to oversee the activities’ of a trainee in order for them to develop and optimal level of professional functioning” (Pepper, 1996). Successful WIL supervision will include the participants participating in decision making, supervisors refusing to intervene and allowing students to make their own decisions and appropriate activities to guide their learning. Supervision in this manner affords the student an opportunity to construct their own learning and enables capability development.

Patrick et al (2008) argues that capability building for all stakeholders is another key component of successful WIL projects. WIL can become complex when evaluation of the quality of professional capability is undertaken, and when this then meets the needs of all stakeholders in the process. It also means an opportunity for the clarification and definition of all stakeholders expectations and checking that students, supervisors and employers/placement providers share the same understanding and expectations. (Patrick et al, 2008) at this point warn that if the benefits fail for any of the stakeholders, the partnership ceases to be effective. Tensions can then arise from the propensity of stakeholders to have varying motivations, expectations, goals, objectives and their understandings for the intended purpose of WIL (Patrick et al, 2008). Therefore, a stakeholder approach requires all participants to have clear understanding and agreements that recognize the needs as well as the benefits and the costs. Issues of mutual benefit and responsibility are raised consistently in WIL projects and are described as activities of multiple enrichments. One participant explained, “*The driver is relevance*” (Patrick et al, 2008). Non- profit and charity organisations as stakeholders can facilitate relevance at differing levels and are not strictly focused on technical skills and knowledge. Learner’s professional identity and self management and authorship take on greater significance when the WIL participants are involved in the more than technical skills work.

One area of WIL programs is focused on skill acquisition. The expanded environment into charity and non –profit organisations; can also extend the modes of skill acquisition. As an example of a theoretical model to apply the Dreyfus Model of Skill Acquisition assumes that when participants acquire a (WIL) skill, the normal pathway is for learners to pass through five stages. This model by Dreyfus, & Dreyfus (1980) proposes that the five stages of skill acquisition are: Novice, Advanced beginner, Competent, Proficient and Expert. In the novice stage a person follows rules that are not contextual and can feel no responsibility for anything but can follow the rules. Competence then develops when the rules become numerous, and then organizing principles are developed and information sorted by relevance. Eraut (2000), notes that competence is distinguished by active decision-making, proficiency is demonstrated by individuals who use instinct and experience in their

decision making and then begin to develop their ways and rules to formulate and execute plans. It is at this point that the learner begins to construct, link and transfer their learning from theory to practice without the necessary support of a highly skilled technical expert in their field. This learning process can be considered one aspect of tacit knowledge. Eraut in 2000, explains that

tacit aspects of knowledge cannot be codified, and are only be conveyed via training or experiences gained. Tacit knowledge has been described as “know-how” as opposed to “know-what” (facts), “know-why” (science), or “know-who” (networking)...It involves learning and skill but not in a way that can be written down. Tacit knowledge appears in their model in three different forms. Tacit understanding are equated to Situational understanding, tacit procedures which are related to Standard, routinised procedures and tacit rules or intuitive decision-making, in which pattern recognition and reactive responses are required to develop situations that are based on the tacit application of tacit rules. (Eraut, 2000:127)

Thus tacit learning is an active imperative in the WIL learning situation for non profit and charity sectors, the technical specific work with limited technical supervision requires some discussion and negotiation. Each WIL participant will be at different stage of the Dreyfus Model and skill sets will be variable. Further skill and knowledge acquisition will be dependent on the stakeholders understanding of the concepts as well as the learner’s stage of skill acquisition.

Costley, 2007, notes that the nature of learning associated with WIL requires the student to be more self-directed ‘than being formally taught by teachers’. In this case self-directed, self-constructed and reflective learning is essential aspect for students to be enriched by their working experiences and develop work-related capabilities and is critical for charity and non-profit stakeholders understand. The tacit learning through work experiences is then promoted as discussed by Brodie & Irving (2007), they state that the use of critical thinking as an assessment tool is one which encourages learners to justify and validate their claims of learning and enables development of their professional identity. This process extends the value of critical thinking by enabling students to recognise their future learning needs and develop their capabilities for lifelong learning. One such self directed leaning skill is reflection.

Reflection as a term that is used in a number of different ways by different authors. We take our definition from Boud, Keogh and Walker (1985) as a generic [statement] for those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciations (p. 19).

This process extends the value of critical thinking by enabling students to recognise their future learning needs and develop their capabilities for lifelong learning. Baxter, Magolda (1999, cited in Bates 2003) prefers the expression “*self authorship*” for the process of incorporating new learning with current understandings, identity and self concept: “*Students construct knowledge as they construct knowledge, ideas and identity*” (p. 322) this happens in an authentic manner when the context and environment support the learner. Bates (2003) also notes that learning is evolving and constant process that can incubate in reflection time and often occurs some time after the WIL experience, and is realized when the learner has to apply and use this knowledge again. In addition the scaffolding of work and experiences is essential and build knowledge incrementally so it can be applied and practiced at an expert tacit level. Brown, Collins and Duguid (1989) cited in Grosjean, (1985) argue that learning is a socially constructed understanding that emerges from practical collaboration. “*Sector-specific experience in the workplace is perceived to be of such importance to their professional development*”, in which charity and non-profit organisations need to be more aware of the planning required for WIL programs and student expectations.

The WIL programs at ISE

ISE has 2 types of WIL programs, 1 type is worth 2 units (notionally, 300 hours), which is a quarter of a year's full-time study load, and the other type is worth 1 unit (notionally 150 hours), which is 1/8 of a year's full-time study load. In the section that follows we only focus on the later type within the WIL program.

The WIL unit is offered each semester with students having to find their own position. At the end of the previous semester, an information session for potential students is held. In this session, the rules about the WIL unit, tips on writing a CV and sitting for an interview as well as general information about the importance of the WIL unit are discussed. At the end of the session, a list of potential intern hosting organization is passed on to the students. The students then apply for the intern positions themselves. Some students receive multiple intern position offers; while some others don't get any. At the end of each year, the Faculty hosts a breakfast and invites the employers and the interns to the breakfast.

The purpose of WIL is to teach and learn, both generic skills and technique skills. The unit provides students with the opportunities to gain practical experience working in the ICT industry. A student spends a total of 120 hours working in a role relevant to the professional interests of the students. An additional 30 hours are required for meetings and assessment items. On successful completion of the WIL unit, a student should have acquired skills in a variety of areas, including:

- the ability to act with honesty and integrity, which reflect respect for themselves and others;
- the ability to apply technical expertise and knowledge based on academic experience gained at the university;
- the ability to apply critical thinking strategies to solve problems and make decisions in a systematic and proactive manner;
- the ability to gather appropriate resources and information to acquire relevant knowledge about the organisation and to adapt to the context within which they will work;
- the ability to utilise appropriate interpersonal skills to participate in teams and to fulfil responsibilities assigned to them;
- the ability to communicate information and ideas in oral, verbal and written forms that are clear, well-organised and easily understood.

There are 5 assessment items. They are designed to reflect the learning outcomes for the unit and these include:

- Industry Report: The assessment is designed for an intern to clearly understand the organization which he/she will work and the industry within which the organization operates. With this understanding, an intern can achieve realistic goals on his/her expectations.
- Learning Agreement: The Learning Agreement is between the intern, the supervisor at the host organization, and the unit convener in the University's Faculty.
- Activity Journal and Time Sheets: An intern has to keep a journal on his/her activities and a time sheet to support the journal. In the journal, the intern records the details of all major activities, together with and more importantly, the purpose, the learning outcomes and personal reflections on these activities. The time sheets must to be signed by the supervisor.
- A Seminar: An intern is expected to give a seminar about his/her learning journey and reflection of the tasks done at the end of the internship to share experience with the other interns.
- Final Report: The final report summarizes the learning journal of this internship. In the report, the intern also reflects on the first 2 assessment items, i.e., the industry and the students' learning agreement.

Two case studies

In this section, we present 2 individual cases with student learning outcomes. Both of the intern students involved in these case studies are with non-IT organizations. To protect the privacy of the involved parties, the interns and the intern hosting organizations are all de-identified. In the first case, we refer the intern as Student X and the organization as Organisation A, and in the second case, Student Y and Organisation B.

Case 1

Organisation A is a community sport club organization. It does not have any dedicated full-time staff members or fixed office location. The board director and board members are all volunteers and receive no payment. The organisation does charge its members a small membership fee; however, all the money raised is used for business operations. Organisation A runs sport competitions among its members on a weekly basis during the season. Members are located widely throughout the community. The organisation relies heavily on the Internet for its operation with a web server and email server. Through the web server, new members can register. Through the web site, the organisation can disseminate messages to its members. Such messages include sport game schedules and up to date competition results etc.

The web site was out dated and on the brink of collapsing when student X accepted the intern position with this organisation. His task was to rebuild the whole web site, together with the Web server and the email sever without any budget.

It was a challenging task for student X. On the one hand, student X has never been in a situation where he was required to make complex decisions for the organisation's IT operations. On the other hand, although he was taught the theory of IT infrastructure and web application, the experimental platform is either NET or Java. Both are enterprise platforms and cost significant amounts of money. In summary student X was required to:

- Independently make decisions to re-new the web site, web server and email sever to fulfil the business needs and
- Find solutions that didn't cost any money.

Organisation A had very little IT expertise. Some of its executive members had IT knowledge, but were not directly involved in its IT operation. As mentioned previously, its director and all its executive members are on voluntary base and have full-time work elsewhere. Running the organisation to assist the community was where their passion was and their own precious spare time was an issue.

When student X initially took on the tasks, he was overwhelmed by the complexity and also the vagueness of real life IT operations. The ideal textbook solution is far away from the real life IT installation. It took quite a long time for him to reconcile the best text book solution with real life constraints. Gradually, he learned how to balance the ideal textbook solutions with real life constraints. After numerous discussions with the key stakeholders, he worked out a project proposal, which was unanimously endorsed by all executive members. Except for some minor setbacks, the whole project went smoothly and delivered its expected outcomes.

From the pedagogical point of view, the project delivered learning outcomes in two skill streams: generic skills and technique skills, which are interweaved and also reinforce each other, as demonstrated in Table 1.

Table 1: Project learning outcomes

Generic Skills	Achievement	New technique skills learned
Communication skills	Great	Web server programming
Information Literacy and Numeracy	Well practiced	
Problem solving	Very well achieved	IT infrastructure Business Analysis
Lifelong Learning	Very well achieved	
Professional Ethics	practiced	
Personal Attributes	Greatly reinforced	

From the generic skills point of view, the intern achieved his goal quite well while from the technical point of view, the achievement was even better. The organisation did not provide IT mentoring for the student. In the beginning, the student was thrown into the deep end and left basically alone. Although the theory knowledge learned from the university classrooms does cover the technique skills needed for the program, to make the connection between textbook theory and the real life solution is still very difficult. Gradually, the student struggled along and did have a grip on the project. The linkage between the textbook theory and real life solution became clearer and clearer, and the student started to appreciate the solid foundation he had gained from the theory of the classroom. The student became more and more confident and felt more and more comfortable in finding compromising mediums between a perfect technique solution and reality constraint.

From the unit convener’s point of view, the student achieved admirably and often exceeded the learning outcomes for the unit. However, on the other hand, the unit convenor felt that more support and technique mentoring should have been provided by the unit convenor and the Faculty to ease the intern into this placement. This intern is a good student with very strong self development skills; otherwise there was a potential risk of disappointing the student. A bad experience at the very beginning of a person’s professional life may completely change the course of his/her career trajectory.

Case 2

Organisation B is a charity organisation. It has 4 full-time staff members and a fixed office location. It relied on IT for its operational and community engagement. In the office, they had several desktop computers, printers, and Internet access. Their web and email services were hosted by an ISP.

Their web site only had a few static web pages and was very outdated. The initial project was to redevelop its web pages, and Student Y picked up the task. When commencing the task, the student found out that the office computers were not up to the standard to meet the critical business operations required, yet the staff members were not aware of the potential risks. The office computer hardware was reasonable, but the software installed was very old and installed in an ad hoc manner with no 2 computers being the same. The IT infrastructure in the office required an urgent overhaul to avoid any disastrous consequences. More critically, the desktop computers stored business data on their own local disks, yet there was no backup. Upon realising the potentially catastrophic consequence, the student explained the situation to the staff members, and the project was re focussed in order to make the office IT environment up to business standard and also provide basic IT training support for staff members. Except for mentoring with IT solutions, the organisation provided all possible support and guidance. The new task was indeed very challenging, despite some support from the staff members.

The initial phase was not as arduous as for Student X in Case 1 above, as the student knew general solutions based on his University studies, his observation of the University IT infrastructure and his own previous work experience. Yet, there were some completely news tasks which were foreign to him. The chief difficulties he faced were to negotiate software licenses with vendors and explain IT

jargon and technology in plain language to staff members. Applying the Dreyfus Model of Skill Acquisition here assumes that when participants acquire a (WIL) skill, the normal pathway is for learners to pass through five stages. This case illustrates that some of the five stages of skill acquisition were taken into consideration and it appears evident that the organisation was prepared and well planned in relation to the WIL program, participants tasks and workload. The tasks became more complex and moved from being novice, advanced beginner, competent, proficient to expert throughout the course of this WIL placement.

Understanding software licenses and negotiating licenses are very complicated tasks. A large organisation usually has 1 or 2 dedicated officers. As the organisation for Student X was a non-profitable charity organisation, its IT budget is very limited. The student always tried open-source free software first and used commercial software as the last resort. In some cases, he negotiated really good deals based on the fact that the organisation is a non-profitable charity organisation and gave value to the local community. The student designed and implemented desktop SOE (standard operating environment) for the organisation. He also re-designed and implemented the local area network. More importantly, he implemented a corporate level backup strategy. At the end of the internship, the original web site overhaul project was not completely finished due to time constraints, however the intern designed a new web site, and with further implementation would be feasible for another person or intern to complete in the future.

Through the project, the student developed good personal relationship with the workers of the organisation. Even after the project's end both he and the organisation still maintain contact. The skill development of this student is captured in Table 2.

Table 2: Skill achievement

Generic Skills	Achievement	New technique skills learned
Communication skills Information Literacy Numeracy	Great and Well practiced	software licenses Vendor negotiation
Problem solving Lifelong Learning	Very well achieved Very well achieved	desktop COE Overhaul LAN
Professional Ethics Personal Attributes	practiced Greatly reinforced	Staff IT training

From a generic skills point of view, the intern achieved his goals. While from the technical point of view, the achievement was similarly good. This student was not as overwhelmed start as Student X but his challenge was to implement tasks without a textbook's help. The distance from the textbook solution to his project is far wider that of Student X's. For example, in the classroom teaching and software license agreement is barely taught. The software in the laboratories has always been properly installed and configured. Students come to the laboratories and take the availability of certain software as a given. Also, software vendors are very often quite generous to teaching and research services and offer free access to their software to university staff members and students. Therefore, the details of software license agreements, their fine-prints and legal implications, are hardly in a student's mind. Appreciating a software license agreements and then negotiating the licence cost with a software vendor is a steep learning curve for any student.

From the unit convener's point of view, the student achieved very well and in many regards exceeded the learning outcomes of the unit. However, on the other hand, the unit convenor felt that more support and technique mentoring should have been provided by the unit convenor and the Faculty to ease an intern into such challenges. In addition, IT teaching should adapt to some of issues the student faced.

Conclusion

This paper reports the preliminary findings of expanding IT WIL programs into non-IT organisations.

Expanding IT WIL programs into non-IT organisations benefits both our students and the Canberra community. It opens a whole new world of abundant WIL placements. More importantly, charity and non-profit organizations have no visa or citizenship restrictions and this provides great opportunities for our international students. The placements discussed in both case studies were with charity organisations, and the students involved were all international students. These arrangements could not possibly be achieved without expanding our WIL program into charity and non-profit organisations.

Regardless of whether students were placed in the traditional IT industry where IT mentoring was available or in non-IT organisations their learning outcomes were similar. However with the change in industry structure, new challenges have arisen. These include relationship management, minimum safety standards, pre-learned technical and mentoring skills etc. This ISE internship program will be improved as a result of continuous stakeholder evaluations and resulting implementations.

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Maintaining the Momentum

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Following extensive reviews into work-integrated learning (WIL) activities across the University, Flinders has identified significant levels of involvement in work-integrated learning activities to date. In order to meet the Vice Chancellor's aim of ensuring that WIL becomes an explicit feature of all undergraduate programs where possible, the University needs to ensure that all key stakeholders are and remain engaged in developing and delivering meaningful, sustainable and fit-for-purpose WIL opportunities for its students. Working in partnership with stakeholders is an essential element in achieving this, to meet the challenge of continuing to engage people within and outside the University, and thereby 'Maintain the Momentum' of delivering WIL.

In order to continue to engage our stakeholders in the development and delivery of an effective WIL strategy, we need to address a number of significant questions, for example, how do we balance the wide-ranging needs of University staff; from those already involved in designing and delivering work-integrated learning opportunities, to those incorporating the concept for the first time? How do we manage resource requirements within the University? How do we address the challenge of providing WIL activities for students against a backdrop of limited placement opportunities? How do we engage with and ensure that we meet the needs of placement providers? How do we ensure that a student's learning outcomes are established and achieved?

Flinders University is undertaking a strategic program of activities in an attempt to address these issues and thereby 'Maintain the Momentum'. These activities and their impact on work-integrated learning at Flinders University will be explored in this paper.

We will examine key initiatives developed as part of this strategy, and how they have and are being delivered in partnership with stakeholders. This includes the development and roll-out of a WIL policy and associated guidelines, developing a partnership approach within the University on a cross-Faculty basis in sharing knowledge and expertise, developing preparatory tools for students pre-placement, and engaging with external organisations locally to forge mutually beneficial partnerships.

There are no easy answers to the questions outlined above. However, through the development of a fit-for-purpose approach to WIL across the University, we can keep WIL on the agenda and further develop and maintain the existing momentum by engaging with all stakeholders (staff, students and external organisations).

Keywords: Work-integrated learning, partnerships, stakeholders, policy, engagement, meaningful

Introduction

Whilst all Australian Universities now incorporate work-integrated learning activities of some kind into their academic program (Smith et al, 2009), there are still significant gaps in this area. According to research undertaken by the Australian Council for Educational Research (Milburn, 2010), there remains a lack of provision, resulting in up to a third of undergraduate students in Australian universities considering quitting their courses.

Flinders, like other Universities across Australia, and indeed the world, truly recognises the significance of work-integrated learning as a tool for maximising student learning opportunities. The University has a proven track record in providing work-integrated learning opportunities through a variety of means, including traditional placements, practicums and field studies, in addition to simulated workplace settings and assessment activities. Flinders has made a clear commitment to these activities, with, in 2008, the University's Vice-Chancellor initiating an exploration of work-integrated learning becoming an explicit feature of all undergraduate programs. This built upon the already-comprehensive program of work-integrated learning opportunities available to students and required the development and roll-out of new activities. However, in addition to increasing numbers

of opportunities, there is also a recognised requirement for the University to achieve and maintain a high standard of delivery, to maximise the effectiveness of these activities.

A 2007 'Audit of Work Integrated Learning Programs at Flinders University' (Harris and Smigiel, 2007) identified 5,604 students "...enrolled in topics requiring practicum, work experience or work-integrated learning placements..." (p.8) in 2006, representing more than a third of the total student intake for that year. The audit also identified 221 academic staff involved in the coordination, management, supervision and teaching of practicum activities, which represented 35 per cent of teaching staff. These were supported by a further 39 staff with academic status, 73 general staff members and 300 part time sessional or clinical supervision staff. Whilst these numbers represented a significant percentage of the University's staff and student population, it identified a need to improve numbers significantly if work-integrated learning was to become available to all students at Flinders.

In addition to auditing numbers of (primarily placement-related) work-integrated learning activities across the University, the audit also highlighted a number of significant issues and concerns relating to the development, implementation and management of such activities by University staff. This in turn led to the development of a series of recommendations which were published as part of the Audit report. These included (in no particular order):

Supporting the development of a University-wide position (and relevant policy framework) in relation to work-integrated learning;

- Identifying and addressing staff professional development requirements relating to work-integrated learning;
- Examining ways to address software management issues;
- Engaging with industry to encourage participation in development and delivery of Flinders work-integrated learning activities;
- Examining ways in which to address issues relating to workload position descriptions and resourcing;
- Examining ways in which to encourage and support rural and remote placements; and
- Examining ways to promote research opportunities.

Addressing these recommendations, combined with the aim of increasing the number of work-integrated learning activities available to Flinders' students, resulted in the development of two strategic objectives:

- To develop a reactive approach in addressing the recommendations included in the results of the 2007 Audit; and
- To develop a proactive approach in promoting the availability of quality work-integrated learning opportunities for all undergraduates, based on existing models of good practice.

Flinders is embarking upon a comprehensive series of activities to meet both of these objectives. This requires the engagement of new and existing stakeholders and, significantly, the ability to maintain existing momentum to build upon an already successful and comprehensive track record in delivering work-integrated learning.

Current Picture

So where is Flinders University at present in relation to its current activities? What momentum are we trying to maintain? Evidence has already identified a significant number of students and University staff involved in work-integrated learning placements, practica and work experience, but does this capture all activity?

There is an issue here of definition. Since the 2007 audit, significant work has been undertaken, within and outside the University, in defining work-integrated learning to ensure that it encapsulates more than just placements. Flinders, in its 2010 draft policy on the subject, defines work-integrated learning as an intentional, organised, supervised and assessed educational activity that integrates theoretical learning with its applications in the workplace. Patrick et al (2009) recognise work-integrated learning as "...an umbrella term used for a range of approaches and strategies that integrate theory with the practice of work within a purposefully defined curriculum" (pV). Both definitions incorporate a much wider spectrum of activities than just placements, although it is recognised that these make up the majority of work-integrated learning activities.

Whilst the 2007 Flinders Audit incorporated a definition of work-integrated learning beyond just placements, it was not widely understood across the University. As a result, the majority of the students identified as participating in a work-integrated learning activity were those enrolled in more 'traditional' placement topics, in nursing and education particularly. The audit did not capture all simulated workplace settings and assessment activities, due in the main to a lack of understanding of the types of activities that could be included as work-integrated learning. Given the adaptation of a formal definition of work-integrated learning by the University, and the promotion of the adoption of such activities within existing and new topics, steps have been taken to identify all work-integrated learning activities in operation across the University. These include:

- Conducting 'Elements of Work-Integrated Learning' survey
- Designed to establish the characteristics of work-integrated learning at Flinders. Circulated across the University with a request for staff to complete if they had *any* involvement in practicums, field studies and placements, in addition to any other on-campus, work-related activities and industry liaison.
- Examining Course and Curriculum Restructure and Renewal (C2R2) Data
- Tabulating and subsequently examining data collated as part of the C2R2 exercise to 'map' all work-integrated learning activities undertaken across the University.
- Informal data collection
- Via, for example, discussion fora such as the Flinders Work-Integrated Learning Forum and 'Managing Work-Integrated Learning' Workshops.

Formal results are still being processed, but an initial analysis suggests that the majority of undergraduate students will, at present, have access to some form of work-integrated learning activity. This is great news and highlights the success of the University in meeting its initial aim. It also demonstrates a strong work-integrated learning 'momentum'.

Maintaining the Momentum

The current picture would imply that Flinders University is making excellent progress in ensuring that work-integrated learning is being or will be mainstreamed to be accessible by the majority of undergraduate students. By raising awareness of what constitutes work-integrated learning, the University can ensure that such opportunities are categorised as such, and offered in areas of study where no or few opportunities currently exist. However, rather than purely measuring numbers, we also need to consider, and be able to measure, whether we providing *meaningful* work-integrated learning opportunities?

Ensuring the effective delivery of work-integrated learning opportunities maximises the positive impact on all stakeholders; students, staff, the University as a whole and industry, in both the short and long term (Orrell, 2004). In turn, partnerships between employers in Higher Education are valuable in promoting work-integrated learning and also play a role in improving the quality of such experiences (Brown, 2000). Delivery of 'quality' also requires ongoing commitment from the same stakeholders at all stages of the process; planning, implementation, evaluation and integration. How is this

commitment a) established and b) maintained, particularly in the absence of significant numbers of additional placements, an increase in demand for placement opportunities and scarce additional resources?

It may be that the answer is complex. To maintain quality we need to engage all stakeholders. To engage all stakeholders, we need to deliver quality. So how do we achieve this? Quality management systems have much to offer educational organisations committed to developing some form of quality improvement system (Doherty, 1994). These include sustained improvements in morale, commitment and motivation, cost savings and improvements in customer satisfaction, in addition to the potential for further innovative development. However, in taking into account the need to engage all stakeholders, we therefore also need to factor in the need to react to change, as the needs and requirements of stakeholders, at all levels, change. Part of this involves the University continuing to provide *meaningful* activities.

Providing Meaningful Experiences

The recommendations identified in the 2007 Audit into work-integrated learning at Flinders and the commitment by the University towards addressing these, particularly in the development of a specific work-integrated learning policy, clearly demonstrates an understanding of the need to provide meaningful work-integrated learning activities.

For example, as previously discussed, the University has recently developed a work-integrated learning policy and associated guidelines, which, at the time of writing this paper, is at the final stages of its drafting process. This represents the capstone of the University's approach towards meeting the recommendations of the 2007 work-integrated learning audit, and also in improving and maintaining the quality of new and existing activities. It applies to all work-integrated learning activities that form part of a topic offered within a University course of study, clearly defines work-integrated learning and identifies the need to design, organise, supervise and assess these activities. It also recognises the need to promote good working relationships with prospective and current host organisations and to develop appropriate administrative procedures, in addition to providing guidance on relevant topic design. The University's policy on work-integrated learning, once adopted, will represent a significant milestone, and is part of a strategic program of activities which also includes:

The further development and roll-out of a comprehensive series of 'Managing Work-Integrated Learning' workshops to assist University staff in preparing students for work-integrated learning. These workshops are compulsory for all new staff involved in leading and organising work-integrated learning activities and also provide new and relevant information for staff managing existing programs;

- Developing software programs to assist in the management of work-integrated learning activities across the University, and to assist in preparing students prior to placements;
- Identifying, discussing and sharing examples of good practice within and outside the University via internal work-integrated learning forums, and involvement in external networks and collaborative projects;
- Liaising with external organisations via collaborative work with the University's Southern Knowledge Transfer Partnership and Career & Employer Liaison Centre; and
- Developing a series of work-integrated learning Communities of Practice under the themes of 'Preparation', 'Implementation' and 'Innovation' to provide University stakeholders with the opportunity to share knowledge and expertise, and to develop new ideas and practice relating to a common or shared interest.

These initiatives clearly focus on engaging with stakeholders. They provide an opportunity to react to the changing demands of the internal and external environment. They encourage the development of alternative, non-placement approaches to work-integrated learning, in addition to more traditional

placements, within a clearly defined definition of the overall concept. They promote a 'fit for purpose' (Smigiel and Macleod, 2008) approach to maximise the effectiveness of work-integrated learning to meet the varying needs of stakeholders. Importantly, these initiatives also help to maximise existing resources, efficiencies and opportunities.

Measuring and Maintaining Meaningful Activities

Beer (1981) identifies a number of organisational features imperative to a viable organisational model. He argues that a viable organisation must be able to react to variety within a complex external environment, and that this can be achieved through the implementation of five distinct systems which can be summarised as follows (Goodyer, Houston & Neitzert, 2008):

- Implementation – delivering the organisation's output
- Coordination – maintaining the strategic focus of the organisation
- Control – monitors delivery
- Intelligence – the 'operations room'
- Policy/identity – the 'think tank' and policy framework

Information has to flow through these systems to maximise the impact on and the learning ability of the organisation, thereby enabling it to react to the changing external environment. In terms of work-integrated learning, these changes relate to, for example, Government policy, student requirements, funding streams, the requirements of external organisations and professional bodies, and changes in the economic climate. Significant changes in the expectations and subsequent requirements of stakeholders that may result need to be factored into the service provided by organisations such as Flinders University.

Flinders is undertaking a strategic program of activities to maximise the quality of work-integrated learning activities at the University, and thereby 'maintain the momentum' already established in meeting the need for these activities. This has a positive impact on the implementation, coordination, intelligence, and overall direction of the University in relation to work-integrated learning. But, do we know the detail of this 'positive impact'? Do we know whether we are, in fact, delivering improvements to these 'meaningful' activities, which, as we have argued, is essential in continuing to engage all stakeholders and thereby maintain the momentum? Do we have any measure of 'adequacy'?

Informally, the answer is yes. Internally we know by attendance at workshops and forums, membership of specific work-integrated learning Communities of Practice, the development of research papers and increased awareness of the nature and scope of work-integrated learning across the University that we are making improvements. From a student perspective we know that the opportunity to engage in a work-integrated learning opportunity exists for most, if not all students, and that preparatory opportunities are available in most cases, but how do we measure this? We also know that external organisations are becoming more aware of the benefits of hosting Flinders students, and are becoming more engaged in the development and delivery of work-integrated learning initiatives but, again, how is this measured? Importantly, in all of these situations, who is informed of these developments or improvements, and how is this information filtered out across the University?

The 'Control' system is responsible for interpreting internal and external data and represents a strategic function within the organisation, filtering information horizontally and vertically (Jackson, 2000). Responsibility for work-integrated learning at a strategic level falls within the remit of the Centre for University Teaching (CUT) within Flinders University. This Centre therefore plays a pivotal strategic role in delivering the 'Control' system of Beer's model, and work is being undertaken to develop a more formal approach in monitoring delivery and, in turn, measuring quality.

Conclusion

Flinders is well on its way to achieving its ambition of ensuring that work-integrated learning opportunities are available to all undergraduate students. The University has developed and is implementing a strategic program of activities to meet this target, and to maximise the effectiveness of these activities. Key in ensuring this effectiveness is engaging with all stakeholders to 'maintain the momentum', and the University recognises that delivering quality activities is essential in meeting this requirement. Having a viable system model in relation to work-integrated learning is, in turn, an essential component in maintaining and improving upon the mutual understanding of stakeholders (Jackson, 2000). In considering this, Flinders also recognises the need to develop a centralised, strategic system of 'Control' or measurement, as an area requiring further development to maintain, and build upon the delivery of meaningful work-integrated learning activities at the University. This, therefore, is an issue being addressed by the University, to the sustained benefit of all stakeholders within an ever-changing, dynamic environment, to 'maintain the momentum'.

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Influence of an Overseas Clinical Placement on the Acquisition of Cultural Competence in Chiropractic Students

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With 22% of the Australian population born overseas, cultural diversity is a central feature of the national identity (Australian Government 2010). There is a clear imperative that graduates of chiropractic programs be culturally competent and ready to meet the challenge of an increasingly diverse patient population. Cultural competence is a developmental process which can best be achieved through professional training and experiences. This educational research study describes the influence of a voluntary overseas clinical placement experience on chiropractic students' level of cultural competence.

Twenty-two students commencing their 5th and final year of a chiropractic course in Perth Australia participated in a voluntary clinical placement in Siliguri India. All participants consented to complete the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Student Version (IAPCC-SV) immediately prior to the placement. This instrument was designed to measure an individual's process towards cultural competence (Campinha-Bacote, J. 1999). Nineteen students from the same cohort who did not participate in the placement served as controls. A post-test survey was administered to both groups within two weeks of the placement.

Analysis of the survey results included descriptive statistics, one-way ANOVA, and Tukey's Multiple Comparison test. There was no significant difference in the Level of Cultural Competence score, nor any of the subscale scores between experimental and control groups before the intervention. After the overseas placement, the overall level of Cultural Competence increased by 14% ($P < 0.05$) in the experimental group, while the control group showed no change. Eleven participants in the experimental group increased their level of competence from Culturally Aware to Culturally Competent. Of note, the Overseas born participants scored significantly higher on the Overall Level of Competence than did the Australian-born participants (5%) although it is questionable whether this is an important difference. Both groups increased their level of competence by the same degree following the intervention.

The results of this study demonstrated the positive effects of an overseas clinical placement on the level of cultural competence in chiropractic students.

Introduction

Australia is one of the most culturally diverse countries in the world. With 22% of the Australian population born overseas (Australian Bureau of Statistics, 2007), cultural and linguistic diversity are features of modern Australian life. Indeed, the Australian Government has pursued multiculturalism as a social policy since 1973. (National Communications Branch, 2007) Today, policies exist at national and state and territory level that support the right of all Australians to equal access to health services that respond to their cultural diversity and promote their health and wellbeing in this context (NH&MRC, 2005).

Because experiences of health and illness vary widely as a result of different beliefs, behaviours, and past experiences, it is imperative that health providers in Australia be prepared to meet the challenges of an increasingly diverse patient population. Accreditation standards for most undergraduate healthcare programs in Australia require inclusion of material and opportunities for students relevant to cultural diversity and competence in the curriculum (Australian Medical Council, 2009; Australian Nursing & Midwifery Council, 2009; Australian Physiotherapy Council, 2006; Australian Psychology Accreditation Council, 2009).

Standard 4.4.4 of the Council on Chiropractic Education Australasia's Standards for First Professional Award Programs in Chiropractic, which relates to program content states (in part):

The behavioural and social sciences and ethics should provide the knowledge, skills and attitudes necessary for understanding socio-economic, demographic and cultural determinants of causes, distribution and consequences of health problems.

Instruction in patient-centered approaches for promoting, improving and maintaining health, and in managing a diverse patient population should be provided.

Students should be given the opportunity to acquire the interpersonal and communications skills to function successfully in a multicultural work environment (CCEA, 2003).

Challenges for educators

Although professional accreditation agencies expect such standards to be met, specific guidelines for providing culturally relevant course materials and opportunities and for achieving learning outcomes are not prescribed. Healthcare educators are, therefore, faced with the challenge of developing curricula that enhance students' knowledge, beliefs, and attitudes toward acceptance and respect of cultural differences, without the benefit of well defined behaviour expectations to serve as learning outcomes and competencies for their students.

Attempts by allied health programs to meet this challenge have included the integration of cultural concepts as threads throughout the curriculum (Sargent, 2005), stand alone workshops (Smith, 1998; Williams, 2002), specific lectures or modules related to culture and diversity, and provision of an entire course, either discipline specific or interdisciplinary, on cultural considerations in healthcare (Crandall, 2003; Diaz-Lazaro, 2001; Napholz, 1999).

Numerous studies of nursing students (Fahrenwald, 2001; Kavanagh, 1999; MacAvoy, 2001; D. B. Pope-Davis, Eliason, M.J., & Ottavi, T.M., 1994; Walsh, 2003), occupational therapists (D. B. Pope-Davis, Prieto, L.R., Whitaker, C.M., & Pope-Davis, S.A., 1993), and physical therapy students (Black, 2002) have shown that cultural encounters, particularly those involving international immersion experiences, can promote the development of cultural competence.

In their systematic review of health care provider educational interventions, Beach et al (Beach, 2005) conclude that both longer and shorter duration interventions, experiential as well as nonexperiential, and curricula focusing on general concepts of culture and specific cultural information (alone and separately) are all associated with positive outcomes.

There is a paucity of peer reviewed literature on curricular inclusion of culture and diversity in chiropractic, which suggests that, at best, the profession is only in the early stages of the continuum.

Cultural Competence

A growing body of literature is available on the topic of cultural competence, particularly in the fields of psychology (Yali, 2004), nursing (Leninger, 2000; Purnell, 2002), and medicine (Beach, 2005). This body of literature contains a number of divergent perspectives about how cultural competence should be defined (Bonder, 2004; Rosenjack Burchum, 2002; Shaya, 2006). However, one of the most commonly accepted definitions of cultural competence in health care was developed by Campinha-Bacote in the nursing profession. According to this definition, cultural competence is demonstrated when the practitioner understands and appreciates differences in health beliefs and behaviors,

recognizes and respects variations that occur within cultural groups, and is able to adjust his or her practice to provide effective interventions for people from various cultures (Campinha-Bacote, 2007).

Cultural competence is a nonlinear dynamic process which can best be achieved through professional training and experiences related to its attributes (Campinha-Bacote, 2007; Rosenjack Burchum, 2002). Its development requires the individual to progress through stages of ethnocentrism, acquire cultural self-efficacy and transform through experiences that challenge and disrupt one's previous assumptions (Andrew, 1998; Mezirow, 1981). Individuals are thus provoked to explore new perceptions, test new behaviors, assess feedback, and reintegrate a new reality regarding beliefs and expectations.

Although there is a paucity of empirical evidence to show that patient outcomes are improved when culturally competent care is provided, studies have shown that failure to acknowledge and accommodate culture-specific health beliefs and behaviours can result not only in patient dissatisfaction, but also in misdiagnosis and poor outcomes (Abe-Kim, 1996; Beach, 2005; Denboba, 1998).

Methods

Placement

Twenty-two students commencing their 5th and final year of an undergraduate chiropractic course in Perth Australia participated in a voluntary self-funded two week clinical placement in Siliguri India. At this point in their education, they had completed the foundational and clinical sciences courses which included one semester of clinical experience. The Siliguri placement is run by the students annually and provides real-life situations that encourage self-awareness of their own values and beliefs and increases cultural knowledge through personal exposure. This clinical placement provides opportunities for students to both observe modelling of culturally competent care by their supervisors and practice culturally competent healthcare themselves.

Siliguri, situated at the base of the Himalaya mountains is the second largest city in West Bengal, India, with a population of 470,275 (according to 2001 census) (India, 2001). A number of communities of people live along the riverbanks surrounding Siliguri. Many of these people are illegal immigrants from Bangladesh and, despite having lived in the region for up to thirty years, have no access to government sponsored education or health care. Many, including children as young as four year old, earn their living by breaking river rocks into smaller sizes for construction and road building.

Students set up four field clinics in these communities providing free chiropractic care, first aid and basic medical supplies for the children and community members. While there, they set up a further three mobile clinics, one servicing a nearby orphanage and the other two travelling to local slums. Nine chiropractors from Australia and New Zealand supervised the students. As none of the participants were fluent in Hindi, translators were employed locally.

Students and supervisors met as a group on a daily basis after work to reflect on their experiences and discuss their personal observations in the field. The students and supervisors were accommodated in several makeshift dormitories for the duration of their placement.

Study Design

Twenty-two students commencing their 5th and final year of a chiropractic course participated in the placement. Nineteen students from the same cohort volunteered to serve as controls. All participants were provided with information about the study and signed a consent form before completing a pre-trip survey, the Instrument for Assessing the Process of Cultural Competence Among Healthcare Professionals – Student Version (IAPCC-SV). Personal details such as sex, age and whether the participants were born in Australia or overseas were also collected. Surveys were submitted

anonymously and data was coded so that the investigator could not identify individual participants. A post-trip survey was completed by all participants within two weeks of the students' return from the placement. This study was approved by the Murdoch University Ethics Committee.

Survey Instrument

The IAPCC-SV is a 20-item instrument developed in 2007 by Josepha Campinha-Bacote that measures the level of cultural competence of undergraduate students in the health professions. The IAPCC-SV is composed of statements addressing the five constructs of Campinha-Bacote's model of cultural competence:

- Cultural awareness: the deliberate, cognitive process in which the health care provider becomes aware of the influence of his or her own biases and prejudices and appreciative and sensitive to the values, beliefs, practices, and problem-solving strategies of a client's culture;
- Cultural knowledge: the process of seeking and obtaining a sound educational foundation concerning the various worldviews of different cultures;
- Cultural skill: the ability to collect relevant cultural data regarding the client's health history and presenting problem as well as accurately performing a physical assessment in a culturally sensitive manner;
- Cultural encounters: the process that allows the health care provider to directly engage in interactions with clients from culturally diverse backgrounds;
- Cultural desire: the motivation of the healthcare professional to "want to" engage in the process of becoming culturally aware, culturally knowledgeable, culturally skillful, and seeking cultural encounters. (Campinha-Bacote, 1999)

Although the terminology is somewhat different, this instrument contains all of Rosenjack-Burchum's key attributes of cultural competence: awareness, knowledge, understanding, sensitivity, and skill (Rosenjack Burchum, 2002).

The IAPCC-SV It is a self administered tool that uses a 4-point Likert-type scale and takes approximately 10–15 minutes to complete. Scores range from 20 to 80, indicating whether students are:

culturally incompetent (20 to 40),
culturally aware (41 to 59),
culturally competent (60 to 74), or
culturally proficient (75 to 80).

The IAPCC-SV is based on the Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals-Revised (IAPCC-R). The IAPCC-SV is a result of modifying the response format of the IAPCC-R to reflect only responses of strongly agree, agree, disagree, strongly disagree and modifying and deleting selected questions on the IAPCC-R (Campinha-Bacote, 2007). Reliability of the IAPCC-SV has been reported in a study of ninety-one nursing students as a Cronbach's alpha of 0.783 (Fitzgerald, 2009). Content validity was established by reviews of the IAPCC-SV by transcultural health care experts (Campinha-Bacote, 2007). Permission to use IAPCC-SV was obtained prior to data collection and analysis.

Data Analysis

The data was analyzed using the Graph Pad Prism 4 statistical software package. Scores were analyzed using descriptive and multivariate analysis. A one-way ANOVA was used to determine whether any significant differences occurred between the mean scores for each group both pre and post overseas placement, both for intragroup and intergroup analysis. Where the one-way ANOVA test revealed a significant difference then a Tukey’s multiple comparison test was used to determine exactly where the difference occurred.

To determine whether an interaction between the gender of the student and overseas placement had an effect upon the outcome scores, a two-way ANOVA was used. Statistical significance in this study because of the small sample, was set at $p < .05$.

Results

Demographic characteristics and pre-intervention cultural competency scores of all study participants are outlined in Table 1 below.

Table 1 - Characteristics of Study Participants and Baseline Cultural Competency Scores

Characteristics	Control (n = 19)	Intervention (n = 22)	Mean Cultural Competence Scores at Baseline
Gender			
Male	10	8	55.9 (SD = 5.9)
Female	9	14	59.3 (SD = 5.6)
Age group			
< 25 years	9	17	57.7 (SD = 6.9)
> 25 years	10	5	58.1 (SD = 3.6)
Country of Birth			
Australia	12	13	56.3 (SD = 5.9)
Other	7	9	60.5 (SD = 4.9)

Countries of origin of those participants not born in Australia included United Kingdom (1), Malaysia (3), Sri Lanka (1), Canada (3), Norway (1), New Zealand (1), Egypt (1), South Africa (1), and Germany (1).

A one-way ANOVA was used to determine if there were any differences in cultural competence at baseline between the two groups. With the intergroup analysis of variance, the Tukey’s multiple comparison test failed to demonstrate any significant difference between the two groups prior to the overseas placement ($P > 0.05$), however it did identify a significant difference between the means of the two groups after the overseas placement ($P < 0.001$).

Table 2 - Pre and Post-test IAPCC-SV Scores for Overseas Placement Group and Controls

Group	Pre-test Mean Score /80 (SD)	Post-test Mean Score /80 (SD)
A (Overseas Placement)	58.1 (5.94)	66.1 (4.97)
B (Control)	57.6 (5.98)	57.3 (7.65)

Cronbach’s alpha pre-test = 0.79 and post-test = 0.88.

Fig 1. Overall Cultural Competence Between Groups Pre and Post Placement

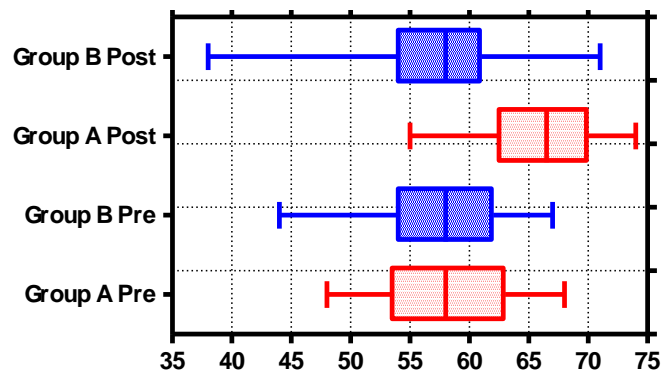


Figure 1 above compares the overall cultural competence scores in the placement and control groups, both before and after the placement. After the overseas placement, the placement group had demonstrated a statistically significant overall improvement in their cultural competence scores ($P < 0.001$). A similar pattern was not identified for the control group ($P > 0.05$). The difference in the mean scores between the groups after the overseas placement was also found to be statistically significant ($P < 0.001$).

At pretest, 13 in the placement group and 12 in the control group were culturally aware, and 9 in the placement group and 7 in the control group were culturally competent as measured by the IAPCC-SV. At post-test, 2 participants in the placement group and 11 in the control group were culturally aware, and 20 in the placement group and 7 in the control group were culturally competent. The score of one participant in the control group changed from culturally aware at pretest, to culturally incompetent at post-test.

The intra group analysis of variance (Table 3) comparing the mean scores for group A pre and post overseas placement also demonstrated a significant difference between the means ($P < 0.001$), a finding which did not appear for the control group ($P > 0.05$).

Table 3 – Intra- and Intergroup ANOVA Pre- and Post Placement

	Sum of Squares	df	Mean Square	Fisher value	F- Significance (<i>p</i>)
Between Groups	290.723	5	58.145	1.767	0.125
Within Groups	3,848.970	117	32.897		
Total	4,139.693	122			

Discussion

The findings indicate that a short-term international clinical placement significantly increased levels of cultural competence in chiropractic students. The results showed that 11 of the 13 participants who were culturally aware before the placement, had had become culturally competent after the placement indicating a meaningful change. Although there is a paucity of longitudinal studies in this area, some studies have shown that changes in cultural competence levels following an educational intervention tend to be maintained, even after one year (Ho, 2010; Lasch, 2000). It would therefore be expected that the short term placement described in this study would result in long term changes to participants' cultural competency. Further investigation is required to confirm this assumption.

It is worth noting that at the beginning of the study no significant difference was found between the mean scores for cultural competence between the two groups as measured using the IAPCC-SV ($P > 0.05$) (see Table 2). This was somewhat surprising as one would expect that students who are motivated to volunteer for a placement in a developing country would have higher levels of cultural competence, at least in one component (cultural desire) than those who do not volunteer. It is likely that other factors unrelated to motivation, such as family, employment, or financial constraints prevented some from participating.

Given the importance of cultural competency for health care providers, and considering that not all students are able to participate in an international clinical placement, it is imperative that other educational interventions for developing cultural competence be offered in the undergraduate curriculum. Comparative studies are required to determine the efficacy and utility of such interventions in the chiropractic curriculum.

Strengths of the present study included the use of a reliable and valid instrument for measuring cultural competence, inclusion of a control group, and adequacy of the sample size. The experimenter was blinded to the individual participants' results, therefore experimenter's expectations were negated in this study. This study was carried out with one cohort of chiropractic students from one university, and as such, the findings cannot be generalized beyond this demographic. Only a single post-test survey was conducted, whereas a follow-up test at 3, 6 or 12 months would have provided useful information regarding whether change in competency levels were maintained. Although Cronbach's alpha for the total scale was acceptable, alphas for the subscales were consistently low therefore interpretation of subscale scores were not reported nor analyzed. The Cronbach's Alpha score used to estimate the internal consistency or reliability of the IAPCC-SV for this study, was consistent with the Cronbach's Alpha score achieved in the study presented by Fitzgerald, 2009.

In summary, results showed that chiropractic students' level of cultural competence increased significantly after an international clinical placement. Participants' age, sex, or country of birth did not play a role in the level of increase in competence. Strengths and limitations of the study were identified and implications for practice, research, and theory were discussed.

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Extending Knowledge Through a Structured Post-placement Seminar

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This educational research study describes the evaluation of the effectiveness of a seminar designed to facilitate reflective practice surrounding an overseas clinical placement for chiropractic students.

Twenty-two chiropractic students commencing their 5th and final year of the course in Perth Australia participated in a voluntary clinical placement in Siliguri India. Two weeks after the students returned from the overseas clinical placement, four repeat seminars were run with groups of fifteen students. The groups comprised those students who participated in the overseas clinical placement and students in the same cohort who remained in their clinical placement in Australia. The seminar was designed to allow the students who participated in the overseas placement to share their experiences and to assist all students, through reflective practice, to identify how lessons learnt in the overseas experiences might apply more widely.

Students who participated in the overseas placement briefly described their experiences, and identified common practices and particular requirements of the work. Students who did not participate in the overseas placement engaged critically by discussing experiences that support or add to what had been described. Before further discussion, time was given for all students to reflect on how these experiences supported, extended, or contradicted their understandings about chiropractic as taught in the university, about how to practice chiropractic, and how these experiences reinforced or transformed their views about chiropractic.

A survey designed to evaluate the effectiveness of the seminars was administered two weeks later. Descriptive statistics and inductive qualitative analysis were used in the evaluation of the survey results.

Survey respondents comprised seventeen students who participated in the overseas placement, and nineteen students who remained in Australia. The seminar was overwhelmingly viewed as a “useful exercise” by both groups. The majority of those who participated in the overseas placement stated that the seminar assisted them to reflect on their practice experiences. Responses by both groups indicated that the learning experiences generated by the seminars appeared to be associated with conceptual, procedural and dispositional dimensions of learning.

This study demonstrated that a structured post-placement seminar, by engaging students in listening, debate and personal reflection, can extend and transform their understanding of chiropractic practice, and promote conceptual, procedural and dispositional development.

Keywords: evaluation intervention study, chiropractic students, clinical placement

Introduction

Health professions and their training institutions throughout the English speaking world have embraced Schon’s concept of the reflective practitioner (D.A. Schon, 1983; D. A. Schon, 1987). This concept has been a mainstay of training in professions such as law, teaching, and nursing for a number of years (Drevdahl, 2002; Jay, 2002; Kenny, 2004). The abundant literature on reflection has identified varieties of reflection such as “critical reflection” and “self-reflection” (Brooker and O’Donoghue, 1993; Rogers, 2001) with critical reflection in particular held to be the key factor in learning from experience (Lowe, 1998; Simpson, 2004).

In practice, there are three kinds of reflective activity. Schon describes “reflection in action”, or “thinking on your feet”, which is usually triggered by recognition that “something doesn’t seem right” (Hewson, 1991; D.A. Schon, 1983). Contrast this with “reflection on action”, whereby the participant thinks about a situation after it has happened and mentally reconstructs the experience, paying particular attention to context. Finally, “reflection for action” guides the decisions of future action.

The value of reflective learning in professional development was highlighted by Boud *et al.* (D. Boud, Keogh, R. & Walker, D., 1985), while Schon considered that by engaging in reflection, professionals

become competent in the grey area of 'professional artistry' of practice (D. A. Schon, 1987). Jasper considers it essential to the delivery of quality care, stimulating personal and professional growth and suggests that it helps to close the gap between pure theory and directed practice. (Jasper, 2003)

Learning through discussions has been the focus of early research into theories of learning (Pask, 1976). It has been recognized as a characteristic of quality teaching (Ramsden, 1992; Trigwell, 1996), and Biggs argued for its inclusion as an appropriate activity in tutorials (Biggs, 1999). The importance of peer learning is also recognised as key in producing professionals who are lifelong learners, able to work in teams, and continue their professional development (Lincoln, 1993). The development of skills to enable peer learning are therefore essential in the clinical education process.

The project was designed to incorporate these principles into a post-placement activity in the final year of a five year undergraduate chiropractic degree course. The pedagogical approach used was guided discussion in a post-placement seminar, or what Boud *et al* refer to as structured reflection or formal debriefing (D. Boud, Keogh, R. & Walker, D., 1985). Reflecting on the placement experiences back in the academic setting is particularly valuable (Kolb, 1984; Schön, 1991) as students don't often have time to reflect when they're out in the work environment. Where the academic setting traditionally allows time for deliberation and analysis, learning in the workplace involves the integration of knowledge and skills under conditions which allow little time for such reflection. Further, an individual's interpretation and understanding of events may be influenced by the social and cultural norms of others (Giroux, 1985), and may be distorted due to the power dynamics of the workplace (Marsick, 2001). Kolb suggests that embedded opportunities for reflection on experiences are critical in order for learning in the workplace to be transformative (Kolb, 1984).

Background

Twenty-two chiropractic students commencing the 5th and final year of their course at Murdoch University in Perth Australia participated in a voluntary self-funded two week clinical placement in Siliguri India. At this point in their education, they had completed one trimester of clinical experience at the university's chiropractic clinic, which involved primarily shadowing and assisting more senior students, who were themselves supervised by practicing chiropractors. In the final two weeks of this experience, they were given more autonomy in managing patients, without the senior students present.

The overseas placement is run by the students annually and affords them opportunities to both observe modelling of best practice by their supervisors in a novel environment and practice competent healthcare themselves. Nine volunteer registered chiropractors from Australia and New Zealand traveled to Siliguri to supervise the students. Several meetings with the students and some supervisors were held before the trip to discuss procedural issues, however no formal cultural awareness training was offered. Students set up four field clinics in the communities surrounding Siliguri, providing free chiropractic care, first aid and basic medical supplies for the children and community members. While there, they set up a further three mobile clinics, one servicing a nearby orphanage and the other two travelling to local slums. As none of the participants were fluent in Hindi, translators were employed locally. The students and supervisors were accommodated in several makeshift dormitories for the duration of their placement. Students and supervisors met as a group on a daily basis after work to reflect on their experiences and discuss their personal field observations.

There were a further 34 students in the cohort who remained in their clinical placement in Perth during this time. This placement consisted of 12 to 18 hours per week of supervised practice in the University's campus chiropractic clinic.

Post-placement seminar

Two weeks following the students' return from the placement in Siliguri, four repeat one hour seminars were held. The purposes of this seminar were threefold: i) for students to share experiences of different chiropractic practices, ii) make explicit links between those experiences and program goals, and iii) to challenge students to think differently and critically about existing models of chiropractic practices.

Participants in each seminar comprised approximately five students who participated in the placement in Siliguri, and ten of their classmates who remained in the placement at the University's on-campus clinic in Perth. The seminars were facilitated by the unit coordinator for the year long clinical practicum unit within the chiropractic course.

It has been shown that the quality of students' experience of learning through discussions is improved if they better conceive of the close relationship between the purpose of the discussions and the subject's objectives. Without this, students are much less likely to approach discussions in a meaningful way (Ellis, 2004). For this reason, a few minutes were taken at the start of the seminars to discuss the aims of the exercise and the process. A worksheet was handed out with the following introduction.

The aim of this seminar is for students to share experiences of chiropractic work conducted in different settings, using the experiences of students who have just returned from India, reflections of others and identifying associations between these experiences and what you are being taught within the course about chiropractic practice.

Through discussion with peers, students are able to extract the underlying significance of their own experiences and learn from the experiences of others. (Ellis, 2004) The principal means for fostering integration of workplace and academic learning in this project was by discussions following reflection-on-action, which was primarily oriented toward reflection on theory and organizational practice, rather than personal growth.

The seminar design was informed by Gibbs' reflective cycle (Gibbs, 1988), thus, students who participated in the overseas placement were first asked to briefly describe their experience, in terms of their location, living and practice conditions, and daily routine.

In the first part of the seminar, students with experience in India were asked to identify common practices and particular requirements of the work by briefly stating the single most significant learning outcome for them personally, identifying aspects of practice that were the same as in Australia, and aspects of practice that were different from Australia. Following this, students without experience in India were encouraged to engage critically with their classmates' experiences by discussing their own personal experiences in clinic that support or add to what had been described.

Students were then given ten minutes to individually consider and reflect on three issues:

- how these experiences supported, extended, or contradicted understandings about chiropractic as taught in the university;
- how these experiences supported, extended or contradicted advice about how to practice chiropractic; and
- how these experiences reinforced or transformed their views about chiropractic practice.

It was considered essential to allow the students time to reflect before engaging in discussion so the conversation would be based on the information discussed, and not solely on their preconceived

notions about these issues. It was hoped that this time for reflection would encourage the students to make connections between practice experience and curriculum content.

The students' responses to these issues were then shared and discussed in the hope of developing a shared understanding of practice requirements and how these requirements are affected by the practice setting, whether in India or in Australia.

Finally, each student was given the opportunity to indicate one finding that was personally important.

Issues arising during the seminars

During the course of the seminar discussions, certain issues were raised by participants in all four groups. Students who participated in the overseas placement raised the issue of the central role of communication, particularly non-verbal communication in healing. Students of chiropractic place a high value and therefore much effort on the development of their psychomotor skills throughout the five year course, as these skills are a defining feature of the chiropractic professional, whereas the significance of good communication skills is not generally recognized and valued to the same degree by students (Hecimovich, M. personal communication, July 2010). It appears that, for many students, learning the importance of good communication requires active knowledge construction in a real setting. The seminar discussion allowed the students to make their learnings surrounding patient communication explicit as well as share these learnings with their classmates. For some participants, this may well have been a transformative learning experience.

Two main issues arose in most groups surrounding ethical aspects of offering healthcare in developing countries. Students who participated in the placement recounted how patients who had little or no understanding of chiropractic practice often demanded pills as part of their treatment. Discussions centred around the students' responsibility to give patients their autonomy, which would have involved a detailed explanation of chiropractic care (which is a drugless therapy), versus the utilitarian approach which involved simply dispensing multivitamins along with the usual chiropractic therapy. Although not all students in the group agreed as to the best approach to this issue, the discussion allowed them to consider an important ethical issue from different perspectives. In one group, students who did not participate in the overseas placement raised concerns about whether offering healthcare to the poor for such a short time was morally right. Although this seminar did not afford sufficient time to deal with such a complex issue in a satisfactory manner, it served to flag the issue for discussion in tutorials at a later date.

Evaluation of the Seminar

Two weeks after the seminar, surveys were distributed to the 56 students who had attended. A total of 34 were returned anonymously, 17 from those who had experience in India (77%), and 19 from those who did not (56%). Please refer to Table 1 for the survey results pertaining to the students who had experience in India, and Table 2 for survey results pertaining to those students who did not have experience in India.

The survey results indicate that the seminar was overwhelmingly supported by both the students who had experience in India, and those who had not. It appears both groups were able to gain from this interaction, albeit in different ways.

Comments made by students during the seminars and in the survey suggest that for some, the seminar experience served to extend their knowledge, allow them to examine issues from other perspectives, and clarify their understanding of certain aspects of the curriculum. The kinds of learning that appeared to arise were largely premised upon discussions about practice experiences. These learnings were associated with conceptual, procedural and dispositional dimensions of learning.

Conceptual learning

Conceptually, the students engaged in discussions about what constitutes chiropractic practice, how it is enacted, what is the scope of practice, and the variations and limitations that confront practitioners. Added to this were considerations of upon what basis should chiropractic work progress: philosophical or evidence-based. These kinds of conceptual learning are central to professional practice and seemed to be particularly stimulated by discussions about practice in different contexts. For example, one student who participated in the placement described a case where a terminally ill patient in severe pain was helped substantially by care given by one of the chiropractic supervisors. Until observing the patient's response, this student had not considered that a chiropractor could play a role in this type of case. After discussion of this case in the seminar, there was general consensus amongst the students that chiropractors could play a role in caring for such patients, with one student commenting in the survey, "Made me wonder why we don't have a broader scope of practice".

Procedural learning

Procedurally, the students engaged in discussions about the applications of chiropractic work in particular settings and on what basis are particular procedures valued. What is significant about this kind of learning is the strategic qualities that arise through the students' considerations of and reflections upon these procedural issues. What we know is that rather than just the use of specific procedures, effective practitioners also require strategies to work out under what circumstances particular approaches are appropriate. One student commented that he "finally understood" why the School does not teach the "philosophy" of chiropractic, and instead teaches an "evidence-based practice" approach. There was much discussion about how busy the clinics were in Siliguri and what strategies the students employed to cope with the sheer numbers of patients. Students who did not participate in the overseas placement commented that they were surprised and "relieved that you could see so many patients" and still deliver a good service. Communication issues arose here as well, as the students were required to quickly adapt to working with interpreters, thus their approach to taking a patient history and obtaining consent required substantial modification. One student commented that she realized how "important being able to ask open ended questions was", only after this luxury was not available due to time constraints and language barriers.

Dispositional learning

Dispositionally, the students engaged in discussions about what constitutes appropriate and worthwhile values that underpin chiropractic work. One student commented that having seen how difficult life is in Siliguri, and how the people cope with their situation, he "doesn't sweat the small stuff anymore", and that issues he "used to complain about just don't bother me now". Other students related similar stories about how their attitudes had changed after seeing patients with serious health problems or difficult life situations. There was much discussion about the ethical issues surrounding the trip, with some students questioning the morality of offering health care for such a short period of time only. This was confronting for some who participated in the trip, and although most took the utilitarian view "at least we provided some care that they otherwise wouldn't have received", some suggested there were some long term benefits as patient education was provided in terms of hygiene, diet and exercise advice, and provision of school supplies, medical supplies and funds raised to build a local school. Here, there is evidence of diversity of views and values associated with this work, and discussions around what constitutes worthwhile practice and worthwhile goals. In this way, the experiences seem to have been generative of dispositional development. It is interesting to note that

Table 1 - Students with recent India experience (respondents 17)

Did you find sharing your experiences in India with other students to be a useful exercise? Yes = 16 No = 1

Comments:

1. Thank you for organising the feedback sessions on the 2009 Hands on India trip during the Rounds sessions.
2. Thank you for organising the exercise. It was stimulating and thought-provoking.
5. It was a good opportunity for us to reflect on the experience.
7. Brought up some interesting issues surrounding the ethics of Humanitarian work.
8. I thought the class didn't really want to hear what we said. (Students X & Y) were rude & condescending & did not even attempt to diplomatically raise their point – which we had already considered & experienced for ourselves.
12. Very useful. It made me think about what chiropractic can do for people in any situation.
14. Thank you for giving us the time to talk about the trip. It reinforced my views on what chiropractic is all about.
17. Yes – thanks! You should do this again next year.

Did the discussions assist you to reflect on your practice experiences? Yes = 16 No = 1

Comments:

1. The discussions helped me more carefully collate my thoughts and relate my experiences.
5. see above
6. It made me think about how priorities shift when you only have a limited time with a patient. Long term management is not an option in India!
7. I don't know about my practice, but it made me think about my motivation for the trip in the first place.

How could the process have been improved for you?

Comments:

5. A more structured presentation from the whole India group.
7. have some graduates who went to India in earlier years attend
13. Felt the “discussion” became more argumentative/attacking

What would you say to a student who did not attend this seminar about its overall worth?

Comments:

- Was a worthwhile discussion with a range of viewpoints.
3. I found the experience stimulating and rewarding.
 8. Don't feel that it was worth the time.
 10. useful for educating/informing the rest of class.
 11. If you want to know about India attend!

Table 2 - Students without recent India experience (respondents 19)

Did you find discussing the experiences of student recently back from working in India a useful exercise? Yes = 17 No = 2

Comments:

- 18. I was a bit surprised the younger students had not considered ethics associated with their experience; esp 'informed consent' & giving of placebo vitamin pills to pts who expected to receive drugs.
 - 23. It was very interesting.
 - 24. I believe that I could have better spent my time just listening to the experiences of those who went to India rather than some other peoples opinions!
 - 28. Thanks! I have already contacted (4th year student) about going to India in 2010! – maybe I can help supervise.
 - 31. I already talked to the students who went to India, so didn't really learn much.
 - 32. Very interesting.
 - 35. Definitely! Made me wonder why we don't have a broader scope of practice.
 - 36. Thank you – I found it very valuable.
-

How could that process have been improved for you?

Comments:

- 18. Young students who went to India were very defensive & hurt by comments made by those who did not go to India; need to be aware of their sensitivities & have some follow up with these students. These guys share a special bond because of their experience, but they need to be open to the views of others that question the process. This is part of the learning too.
 - 24. If every one in the class was present at the one time
 - 29. Have the supervisors who went to India present.
-

In what ways were your values or interests associated with chiropractic confirmed or extended through this process?

Comments:

- 18. Heightened concern over whether we should be doing this, in its current format; (going to India that is).
 - 23. Extended my passion for chiropractic
 - 24. Confirmed that the power of touch is vitally important
 - 27. Made me realize why Murdoch doesn't teach as much 'philosophy' and is more evidence based.
 - 32. Confirmed that there's more to treatment than adjusting – communication is most important – not just in words but in touch
-

What would you say to a student who did not attend this seminar about its overall worth?

Comments:

- 18. All views are valuable; different people with different life experience have something to contribute; not necessarily right or wrong. But need to appreciate the views of others.
 - 23. It was great to see how chiropractic benefits people in other areas of the world.
 - 24. Our session became very heated & raised many ethical questions
 - 32. A great way to learn about the trip if you couldn't go.
 - 33. Too bad you missed it – it was really interesting!
-

shortly after the seminar, students who participated in the seminar contacted other educational institutions with chiropractic courses in Australia and New Zealand with a view to organising placements in Siliguri at 3 monthly intervals.

Integrating workplace learning and academic learning

Learnings that arise from experiences in clinical practice settings differ from those that arise in academic settings. Skills gained in placements off-campus are mostly behavioural “people skills” such as communication, time management, an understanding of workplace culture, treating others with respect, a good work ethic, and developing a sense of professionalism, culminating in an appreciation of what it means to be a professional in their specialty area. (Eames, 2005; Fleming, 2008)

Accepted wisdom dictates that experiences in both academic and workplace settings are best for the development of robust professional knowledge, skills and dispositions, as both have their strengths and weaknesses, and may be seen as complementary. Although much has been written on learning in the workplace, there is a dearth of literature on methods to explicitly integrate the learning acquired in the workplace with that acquired in the academic setting, and exemplars of connecting activities are particularly scarce. This leads one to suspect that, in many cases, opportunities for extending and transforming the learning arising from both settings are lost in practice. Social learning theorists posit that social interaction plays a fundamental role in learning (Bandura, 1977; Brockbank, 2007; Tudge, 1993). Most models of reflective learning suggest that reflective discourse is a necessary component of transformative learning (Atkins, 1993; D. Boud, Keogh, R. & Walker, D. , 1985; Mezirow, 1991; Moon, 2004; D.A. Schon, 1983). The post-placement seminar described above afforded students the opportunity to reflect on the learning acquired in the clinical setting, make explicit links with the curriculum, make comparisons and judgments about worth, and share their observations with peers through semi-structured discourse.

The seminar reinforced course concepts and influenced the students’ perceptions of the value of chiropractic practice. Studies have shown that individuals can expand their understandings of concepts by engaging in various forms of discussion (Back, 2003; Graham, 1995; Platzer, 2000). In this case, discussion with peers may have served as a mechanism to expand the student's understanding of concepts such as evidence based practice and the role of communication in the patient encounter.

The post-placement seminars provided an imminently suitable forum for students to reflect on what they had learned and experienced. They were also able to share their thoughts and experiences with each other, and this was perceived to be a very useful experience, particularly by those students who did not participate in the overseas placement. The further knowledge that students acquire during the seminars can be integrated into their year-long placement in the on-campus clinic and/or their community service placements throughout the year.

Thus, for these students, the process of learning about chiropractic that is begun in the classroom and continued and enhanced during clinical placement is consolidated in the post-placement seminar.

A strength of this study is the high participation rate of the students who attended the seminars. However, as this study involved only a relatively small cohort in a single institution, the results cannot be generalized to other student populations. Responses to the survey questions about whether the seminar assisted their reflection and how their values or interests associated with chiropractic were confirmed or extended indicated that some conceptual, procedural and dispositional learning took place, however, this was not confirmed with an objective measure such as a formal assessment.

Conclusion

The results of this study support a constructivist view of learning whereby conceptual development is an active, evolving process in which individuals use their own experiences as a context for constructing meaning. This is facilitated by affording students the opportunity for interacting with others in discussion groups, sharing and articulating different experiences and considering different perspectives. Gibbs' reflective cycle (Gibbs, 1988) appears to be a useful approach in a post-placement seminar to achieve greater integration of learning between academic and workplace settings.

The effectiveness of workplace learning is widely considered to hinge on the act of critical reflection on the experience thus clinical placements need to have embedded in them some opportunities for such reflection. The post-placement seminar helped students make connections by giving them a structure within which to reinforce and extend their learning, and undertake the crucial activity of critical reflection within an environment which was distant from the actual clinical setting. In addition, through guidance from the facilitator, it was possible to engage in critical perspectives on practice and learning processes. It is hoped that by enabling the students to see the connections between academic theory and clinical practice they will develop greater clarity about their own academic goals.

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Work experience: Business students' voice!

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Aligning business undergraduate programs with industry skill and work requirements is reshaping higher education. It is now an acknowledged and strategic initiative to react to business demands in the education sphere. The framework for learning generic skills has been well developed and documented in reference to employer groups and articulated through many university programs. However, the development, monitoring and evaluation of these skills uptake using student views are not well documented. This paper presents university students' perceptions of their personal generic skills capabilities. The literature addresses the need for these skills to be inclusive of both personal attributes in conjunction with requisite technical abilities. Clearly defining and understanding these personal attributes has been a challenge for educators. The paper offers student feedback to further develop our understanding of the specific skills required in the work place from students' perspectives.

Focus group discussions using business students were conducted at the completion of a client project that involved creating a strategic business plan. Overall results stressed the pivotal role of client contact and a more realistic learning environment created via work experience. Students stated that traditional assessments did not create a level of enthusiasm and interest to learn when compared to the client work project. In addition, students noted that working in a team, for a real client and with 'real deadlines' highlighted the necessity for personal skills development. The results from this study will be merged with data collected on employability skills to develop a framework to monitor the development of student skills across a defined study period. The framework is designed to assist students to be accountable for their own employability skills development. Students should engage in both academic content requirements but, also in their own personal development process within a monitored and self managed framework. The transference of personal attributes and skills is reshaping academic practice in course development and has added a new dimension to teaching.

Keywords: Student outcomes, employability skills and teamwork.

Introduction

Teaching a relevant and marketable set of graduate attributes and skills to enhance employability is reshaping academic practice. High levels of youth unemployment and the consequential spotlight on job achievement statistics from individual business schools, has resulted in business schools examining the extent of their alignment with industry needs (Jackson & Chapman, 2009). In this study, final year undergraduate students from an Australian university were tasked with completing an industry based client work project. In preparation, the necessary skills (personal and academic) were developed through the curriculum in a progressive fashion to help prepare students for placements. They were required to develop a strategic business plan for their client working in small groups. Students were tasked with organising client meetings to obtain information. A variety of target industries from government agencies through to sole traders formed the industry placement pool. Students were also expected to share and explore their feelings and experiences as they worked in the client environment using reflective journals and debrief sessions. The intention was to generate an atmosphere of self-awareness, self efficacy and knowledge of their personal development and growth over the semester. The final results of these experiences were presented as part of their business plan to a panel of judges.

The benefits derived from the experiential learning as a result of working in groups carrying out real business projects has been well documented in the literature (Burns, 1978; Dean, 1982; de los Santos & Jensen, 1985; Dommeyer, 1986; Malhotra, Taschian & Jain, 1989; Thistlewaite & Zimmerley,

1978). The real world environment accelerates learning and skills development and produces better equipped students. Skills such as communication, problem solving, critical thinking and development of work ethics are a few of the 'street smart' employability skills needed (Ryan & Ogilvie, 2005). In addition, workplaces are becoming increasingly culturally diverse. The development of an international perspective and cross cultural sensitivities, particularly within the team environment is now a requisite skill. Cramer (2006) supports this focus of including global elements within university graduate attribute statements.

These generic graduate attributes have been addressed in various forms at the unit, course and university levels throughout the literature (BHERT, 2003). Student assessment of their skill development according to the generic graduate attributes has been previously outlined in the literature. Students have been required to rate their development of graduate attributes such as communication, problem solving, ethical and social sensitivity, discipline knowledge and teamwork skills. Most of this student self assessment has been of a quantitative nature based on the generic attribute labels generated by academics or employers (BHERT, 2003). The purpose of this paper is different. This study examines student's perceptions and reflections on their learning experience in relation to skill development whilst working on a client project. The aim was to ascertain student feedback on their personal and academic skills level and level of 'job readiness.' A qualitative approach was utilised via focus groups and in-depth discussions. Students were required to reflect on their work experience using their own language and vocabulary.

Literature Review

Employers consider the divide between theory and practise needs to be addressed by exposing students to real life business examples and practical experiences while studying in higher education (Jackson & Chapman, 2009). Anecdotal evidence suggests that employers find graduates often lack some of the more personal attributes and skills required in professional employment positions (Institute of Directors, 2007). According to the Business Council of Australia, industry considers graduates as not being 'job ready', lacking the skills required to successfully apply disciplinary knowledge and add value in a globalised, knowledge economy (BCA, 2006; BIHECC, 2007). The students' ability to successfully carry out technical tasks is not the issue; rather it is the manner in which they perform these tasks. There is a need for both entry level graduate employees and ongoing employees to exhibit a broader range of personal attributes which new graduates traditionally learn in the work place. According to Candy and Crebert (1991) there is a broad range of skills learnt in the work environment in both formal and informal situations. It is often these skills that traditional practicum's seek to develop prior to the student formally entering the work place.

Research in the retail industry (Wright, Cushman & Nicholson, 2002) found a difference in overall perceptions between industry participants and academic staff in ranking attributes for success. This research clearly states that affective or personal skills are more important than a simple emphasis on cognitive skills. Consequently, the importance of communication skills was fully acknowledged and incorporated in the student survey. Personal attributes such as communication and interpersonal skills, self management and initiative and enterprise help define being 'job ready' according to the Australian Chamber of Commerce and Industry (ACCI, 2002). Research by Muldoon (2009) investigated the relationship between part time work and the attainment of desirable skills and personal attributes. The most frequently cited work skills were 'people' and communication skills (Muldoon, 2009). However, the value and importance placed on skills was inversely related between the employers and students. Employers rated interpersonal and personal qualities more highly than students. Students rated academic skills more highly than interpersonal skills because they believe these skills are prerequisites to gaining employment (Muldoon, 2009).

The most often cited required skill or attribute was the ability to work effectively in a team environment (Jackson & Chapman, 2009; CBI, 2007; Archer, 2008; ACCI, 2002; AIG, 2008; Harvey, 1997). Team work is often discussed in the literature in conjunction with other skills such as problem

solving and communication (Jackson & Chapman, 2009; CIB, 2007). According to the ACCI (2002) team work skills are required for productive working relationships in all facets of industry. Table 1 below aims to map the various skills and attributes from team and individual perspectives. It also lists the so called real world skills and academic skills as an interesting point of comparison.

Table 1: List of essential skills required by employers

Team skills	Personal attributes	'Real world' skills	Academic skills
Supportive to achieve the results	Honesty and integrity	Punctuality	Basic literacy skills
Support the contribution of others	Enthusiasm	Reliability	Cross-cultural and international outlook
Members share information and ideas	Commitment	Problem-solving	Life-long learning
Are open to the ideas of others	Positive self-esteem	Hardworking	Numeracy and technological skills
Keep the goal and the mission in mind	A positive, 'can do' attitude	Balanced attitude to work and home life	Basic oral communication skills
Avoid "winning" or looking good at the expense of others	Initiative and enterprise	Ability to meet deadlines	
Team working and co-operation skills	Sense of humour	Ability to deal with pressure	
	Commonsense	Ability to plan and organise	
	Adaptability	Customer Service	
	Motivation	Personal presentation	

(Adapted from: ACCI, 2002; McIlveen, 2008; Scott & Fuller, 2009; Witzel, 2007; CBI, 2007; Archer, 2008; ACCI, 2002; AIG, 2008; Harvey, 1997).

Industry demands have prompted universities to formally incorporate required skills identified by employer groups into the curriculum. However, there have been questions regarding the ability to assess whether these skills have actually been learnt and developed as part of a student's higher education experience (Atkins, 1999). Moreover there also appears to be a gap between teaching the skills and the actual application of these skills in the workforce (Ladyshefsky, 2006; Scott & Fuller, 2009). Table 1 can be used as a reference point to identify some of these skills and attributes.

Research by Watson (2006) suggests managers are best taught through reflection of their personal experiences. Therefore, it follows that the skilling of future managers should consider the use of reflection in the classroom for more practical impact in the workplace. It is suggested by Loo (2002) that reflective learning around group work can also help facilitate learning in interpersonal skills. Loo's research found that students using reflective learning in group work situations displayed evidence of being able to both identify their shortcomings and to take steps to change their behaviours to more effectively work within a team. Research in student reflection and learning conducted from practicums is predominantly based within the teaching, nursing and counselling sectors. Notably, business based practicum research is less commonly reported in the literature. This study provides business students' reflections on their learning experience whilst conducting a client project carried out within a group work environment.

Methodology

Five focus group discussions (10-12 participants per group) were held with business undergraduate students in a third year bachelor of business unit. An additional focus group and five in-depth interviews were also conducted with students in a similar postgraduate unit. A total sample of 69

students was achieved. Students were contacted by one of the researchers (not their lecturer) and were given the opportunity to participate in the focus group discussions. All contacted students were keen to participate.

The focus groups were conducted at the conclusion of the semester. As indicated earlier, students undertook a client project working in small teams to generate a strategic business plan. It was therefore opportunistic at the end of the semester to explore their immediate feelings and overall experiences. As most students had participated in previous client/work experience projects throughout their degree, it allowed students to reflect more fully and critically on their overall university work placement experiences.

Prior to the commencement of each focus group and in-depth interviews, each student completed a written reflection on their experiences. Students were encouraged to reflect on their work experience and write their introspections. The following broad prompts were given to assist students:

- What was the best aspect of working on a client project?
- What was the most challenging aspect of working on a client project?
- List the skills that were important to you in carrying out the client project?
- What was the most significant skill you learnt through undertaking the client project?

As a quantitative measure, students were also asked to rate on a scale of 1 – 10 (with 10 being very likely), the likelihood of recommending the client project experience to a friend doing the unit next semester. A final question asked students to rate on a scale of 1 – 10 (with 10 being extremely relevant), ‘how relevant to your career do you think your client project participation will be?’ General demographic questions such as part/full time student, previous work experience and overseas/ local student were also collected. Students were advised of their rights and were assured anonymity. University ethics clearance was obtained for all data collection methods in this study.

The focus groups were facilitated by two of the researchers. Students were required to break into small groups (two or three students) and brainstorm their experiences in working for clients. They then discussed these experiences with the larger group. This enabled the researchers to talk intimately with one or two students within the group as well as within the dynamics of the focus groups. Students summarised their thoughts on individual whiteboards and these summaries were transcribed for further analysis. The focus groups discussed students’ feelings and experiences during their client work. Students were asked what skills they used to complete the client work. They were prompted to organise these skills in terms of personal skills, skills acquired from previous units and skills they acquired in their current (third year) unit. Finally the discussion centred on students listing the skills they needed but did not have or found difficult to gain.

Student reflections were transcribed and the quantitative responses entered into the SPSS package for analysis. Notes from the focus group discussions, the whiteboard summaries and researcher notes taken during the discussions were also transcribed. A rich source of textual data was obtained. Textual analysis was used to summarise and clarify themes from the data. Three researchers from the team (including one researcher that was not present during data collection) reviewed the transcripts and independently coded the data. Summary tables were established and cross referenced. Codings were then discussed, with differentiating concepts recoded and agreed upon. Finally all codings were cross referenced for validity and reliability (Glaser & Strauss, 1967). The resulting output was substantial. The following results section reports the findings from the two rating questions, and then discusses the main themes developed from the textual analysis.

Results

The quantitative data consisted of two rating questions. The first question related to the likelihood of recommending the client project work to their friends. The literature on student satisfaction has shown the measure ‘recommending to friends’ to be a prime indicator in measuring satisfaction (Marzo-

Navarro, Pedraja-Iglesias & Rivera-Torres, 2005). The sample had a mean score of 7.5 (mode 8; median 8) for likelihood of recommending the client project to friends. The result was highly skewed to the right, indicating students were positive toward recommending the client work experience. International students (mean 7.7) were more inclined to recommend the client project than local students (7.1). Part time students (6.4) were not as keen to recommend the group project to friends compared to full time students (7.9).

Students rated their perception of the relevance of the client project to their future career. The sample mean was 7.6 (mode 8; median of 8) again indicating a positive client work experience with a strong perception of future work relevance. Once again, international students tended to be more positive (7.9) than local students (7.3) in the sample. Noteworthy, was the rating of how relevant the experience was viewed for their future career. This was viewed as similar for part and full time students and those either with or without previous work experience. The quantitative results reflected a high degree of optimism towards work experience with little differences based on either part or full time studies or work experience. However, International students were particularly keen on client work in spite of the difficulty they encountered with cross cultural differences and language barriers.

Student Discussions and Reflections

Three major themes emerged from the focus group discussions, reflections and researcher notes. These are discussed in the following paragraphs using quotes to enhance and illustrate the emergent themes. Themes could be categorised under the headings: real world learning, my teamwork skills, cultural diversity and business protocol.

Real world learning:

The 'reality' of the client work experience was clearly identified as an important benefit. Students were enthusiastic to assist a real business and better understand how one operates. They reflected feelings of excitement and interest in dealing with a real client and being able to put 'theory into practice'. Student realisation that their work could be implemented was significant, as illustrated by the following quotes:

Being able to complete a project that had some significance – e.g. industry will use the report - gave the task added value to me...

Knowing results were being used for a real company was the most important part to me...

Having someone appreciative of anything we can find out for them...

Being able to interact with industry clients and help them identify research...

Being able to help a client find the answers to their research objectives and management decision problems

Learning what are the realistic needs of organisations in the real world...

It was evident that a heightened learning environment was created by the real work experience. Students stated that case studies, 'real world' scenarios and problems did not create the same level of enthusiasm and interest to learn compared to the client work projects. In addition, students noted that working in a team, for a real client and with 'real deadlines' highlighted the necessity for personal skills development. Students identified the second most important aspect of the client work as being the ability to improve particular skills. These skills were more often personal rather than academic including communication, time and organisational skills:

...the best aspect was to improve my communication skills...team work can share different ideas and opinions with other members to enrich the content of work...I learnt how to effectively work in a team...

...working with different personalities in the group and working with many ideas and making them into reality and learning different skills from different people...

...to experience how to overcome conflicts and think outside the box...

Generic skills such as team work, communication, time management, problem solving and research and analytical skills discussed in the literature by academics and employers were also mentioned by the students. Students predominantly focused on the development of their own attitudinal skills rather than discipline and cognitive skills. This is contrary to research by Muldoon (2009) that found students rated discipline or work skills rather than personal skills as being most important. In this study students acknowledged the need to develop interpersonal skills particularly in a team environment. They described these skills explicitly and showed a high level of awareness of their own needs and personal growth achievements.

Teamwork skills

Teamwork is a frequently cited skill required by employers. It is also in the top three 'soft skills' required for innovation a key factor identified in Australia's international competitiveness requirement (AGI, 2006). Team work skills cover a range of competencies. In this sample students focused strongly on the personal attributes required in the team environment. These skills were identified by students as crucial to the overall success of the client project. Team work skills were mentioned by 57 students as the key skill required in the project. The second most important key skills were personnel attributes including communication and time management skills.

Client work within the business degree course is often conducted in a team based environment. Even though most students had previously experienced teamwork, they still noted basic team skills in their list of required skills. For example, students found it challenging in the team environment to listen and accommodate team members' opinions. Students were willing to admit they found it difficult to have the required patience and to "...tolerate the confusion... so I could see where some of the members were coming from." Students also found it difficult to balance others ideas and to "compromise", "stay calm" and have "poise" within the group setting. The difficulty in accommodating thoughts and merging ideas was one aspect that was continually listed as problem areas. Students listed patience, listening, conflict resolution, and anger management skills as the most useful to complete the work experience project. The need to learn "...how to brainstorm in an effective manner" was also listed. Students self awareness of their lack of required skills was highlighted by the added pressure of working for a 'real' client with real time frames.

Cultural diversity

Student groups in this sample were self selected. Many groups were a combination of different cultural backgrounds. This proved a significant issue for working coherently in teams. The focus groups reported a high degree of tension within mixed cultural groups. Students felt they were not equipped to "...deal with the diversity" inherent in these groups. As stated by a Chinese member of a group:

We would have a meeting and then go off and talk together to work out what we had to do.... We just didn't understand what the others were doing...hard to work with students from different countries –we had Indian, Sri Lankan, Malaysian and Chinese in our group...

Cultural diversity is a growing global phenomenon and one that students need specific skills to effectively manage. Students indicated a need for patience a skill heightened in mixed cultural situations. Adapting to different cultural work ethics also proved difficult. This cultural gap was

evident not only between students but also between the students and the client. Communicating with local companies highlighted the fact that many students didn't have the required knowledge or understanding of correct phone, email communication and dress standards protocols.

Business protocol

A majority of the students interviewed were from the 'Gen Y' age group. Gen Yers are considered to be computer and internet competent and multi taskers with a global perspective (McCrinkle & Wolfinger, 2009). However, this research highlights the lack of required personal skills to effectively integrate this knowledge. Students indicated that they can more easily recognise the dynamics inherent in global business rather than the required face-to-face skills implicit in communication skills. Often these situations highlighted underlying skills that were unique to the students' own experience and culture. For example, some students noted a lack of self confidence in communicating with clients. In these cases their own perceived lack of knowledge in correct business language and effective communication techniques were mentioned. Students found verbal communication in many different facets difficult:

The language to use when talking with industry was a skill I felt I needed...

How to be a consultant... how do I give customer service?

How to give critical advice in a good way when necessary?

Deliver negative information...in a positive manner...so it is easier to deliver to the client

Students felt their "casual" language was not appropriate for business setting despite familiarity with communicating electronically (Young, 2008). Generation Y's lack the face-to-face communication techniques across a broad range of situations. When prompted students felt they were not confident about client interaction and needed guidance on how to word questions and the type of questions to ask. Implementing ways to overcome these explicit limitations can assist in building self confidence and producing the required 'can-do' attitude required by employers (Witzel, 2007).

Conclusion and Future Research

These findings indicate that 'generic skills' are a vast array of skills with many dimensions that ultimately depend on each individual student's level of personal growth, cultural background and experiences. The assessment therefore, of these skills requires combining a qualitative approach along with the typical rating assessments already designed by some universities in monitoring skills transference across a degree.

The results from this study will be merged with data collected from industry and structured to develop a framework for monitoring the development of skills from student's perceptions across their studies. The aim is to educate students to take responsibility for their own skills development. By allowing students to reflect on their own performance when carrying out client projects they can engage more fully in academic content and their own personal development process. The change in emphasis from traditional knowledge and cognitive domains to more personal, practical and affective domains is noteworthy. The key is to actively engage students to introspect on how they are developing against employability skills requirements. The literature defines the academic perspective on graduate generic attributes (Barrie, 2006) and industry's perspective on the make-up of these employability skills. However, the student perspective is the missing link in the process. Students in this sample were keen to participate: "Better to fail and get confused in class environment – than fail at work".

The findings of this research indicate that the development of an evaluation and reflection mechanism for business practicums may improve the outcomes and thus assist in the development of the necessary

skills and attributes that will better equip students in the knowledge economy. In addition, students need to be able to assess their own ability as they undertake work placements and fully acknowledge their own growth and development. This will further enhance student confidence, develop self efficacy and create a stronger student voice in their overall development.

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Eportfolios in Cooperative Education: Do They Work?

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This paper documents the process of integrating eportfolios from the multidisciplinary perspectives of the Schools of Languages, Social Sciences and Education. The experiences of Coordinators, Flexible Learning Advisors, Academic Supervisors and students, the stakeholders in Cooperative Education, will be considered. Significant issues will be analysed regarding the use of eportfolios such as cost, time, adequacy of training, software challenges, technical support, availability of computer laboratories, implications for moderation and marking as well as the effectiveness of the communication amongst all involved. Finally, the evolution of the project will be evaluated and future developments identified.

Key words: eportfolios, cooperative education, assessment, perspectives of stakeholders, Mahara, Web 2

Background

Since 2007, the Auckland University of Technology (AUT) has been involved in a national research project funded by the Tertiary Education Commission to explore the use of software entitled Mahara as a tool for producing eportfolios. The software is described as a fully featured electronic portfolio, weblog, resume builder and social networking system, connecting users and creating online communities. It provides students with the tools to set up a personal learning and development environment.

Mahara was subsequently trialled by the School of Education Te Kura Matauranga with all third year Bachelor of Education students to fulfil their teacher registration requirements which required the submission of two portfolios. The eportfolios were perceived as effectively documenting the emerging philosophy of the students as teachers over the three years. Staff also successfully aligned the outcomes with the graduating standards to ensure that all were covered. This trial informed the development of a new version of Mahara which was perceived as more stable and user friendly.

The context

In 2009, a Research, Education, Learning and Teaching (RELT) project was established. It aimed to identify vocational and professional programmes in each School of the Faculty of Applied Humanities where students could benefit from the introduction of an eportfolio. The School of Education Te Kura Matauranga's programmes were Education and Professional Practice, Years 1 and 2. The Cooperative Education (Co-op) papers offered by the Schools of Languages and Social Sciences, Hospitality and Tourism were selected. The use of Eportfolios was initiated and approximately 400 students participated. The final phase of the project included an evaluation of the effectiveness of eportfolios and of Mahara for their delivery.

Cooperative Education is a course at the School of Languages and Social Sciences at AUT in New Zealand. This compulsory, year-long course is considered the capstone of the Languages and Social Sciences Bachelor of Arts (BA) degrees. The course is delivered in two streams. The Social Sciences stream includes majors in one or a combination of the following: Psychology, Criminology, Conflict Resolution and Social Sciences. The Languages stream includes majors in Japanese, English Studies, Chinese and Creative Writing. The course prepares students for the transition to employment. It integrates the content of the students' degrees with learning through productive work experiences in a placement related to their academic, personal and career goals.

Traditionally, students were required to write a 10,000 word reflective portfolio based on their Co-op experience. This enabled the collection, selection and reflection on the students' learning experiences and encouraged the development of effective practitioners. The process also developed the students' skills as they became aware of and took control of their learning. However, students often consider the length of a traditional portfolio to be of greater significance than the content (Doig, Illsley, McLuckie & Parsons, 2006). The portfolio process was also demanding and poorly timed as students struggled to meet the requirements of multiple assessments to complete their degrees. Portfolio assessments are time-consuming in terms of guiding learners through the process and providing individual feedback (Kohonen, 2002).

There has been growing recognition that lengthy paper portfolio was considered out-dated as it no longer reflected the needs of contemporary workplaces. As argued by Condie and Livingston, facts are now viewed as "much more transient and (that) views and theories develop and change the knowledge of the world around us and the information that can be accessed about it is developing (fuelled) in part by the World Wide Web" (2007, p.338). Acosta and Liu (2006) concur, recommending that new models of instruction are more appropriate to support approaches such as lifelong learning and autonomous learning.

The eportfolio as a "digital handbag" which uses digital tools to document, store and organise information provides an appropriate alternative to the paper portfolio. The eportfolio is also described by Stefani, Mason and Pegler as "the new generation of the old 3-ring binder" (JISC as cited in Stefani, Mason and Peglar, 2007, p. 9). It is a dynamic and flexible tool for collecting and presenting information about students' learning and development. According to Sherman (2006), the fact that learners can access their portfolios from home extends the learning outside the classroom, to establish purpose and personal relevance to classroom activities. It also provides an excellent vehicle for achieving asynchronous and non-geographical opportunities for sharing and providing guidance in the process of reflection which is an essential element in developing learner autonomy (Doig et al., 2006). An additional benefit of the portfolio is its potential to showcase the students and their work to a variety of audiences such as prospective employers, friends, family and lecturers.

Eportfolios for learning

Chang Barker describes eportfolios as "a critical knowledge management tool in a digital age" (2006, p.xxvi). Dr Helen Barrett defines eportfolios as using "technologies as a container, allowing students/teachers to collect and organise artefacts in many media types (audio, video, graphic, text); and using hypertexts to organise the material, connecting evidence to appropriate outcomes, goals or standards" (Barrett as cited in Ministry of Education, 2009, p.7).

The eportfolio's role is to "evidence learning in general and to provide a personal digital collection of information showcasing the learning process, experience and achievements of a learner for career purposes and for personal development" (Marcoul-Burlinson, 2006, p.168). Lambert and Corrin identify one of the purposes of eportfolios in educational settings as a "tool of assessment where students are required to show through selection and reflection on their learning activities how skills and knowledge development have been demonstrated" (2007, p.2). Herdlein concurs (as cited in Reardon, Lumsden and Mayer, 2004), recommending the use of eportfolios to demonstrate competencies and evaluate outcomes of co-op student work placements.

Such a shift represents a move away from the traditional teacher-centred approach where students are the passive recipients of knowledge. In an eportfolio, learning is achieved through "continuous building and amending of previous structures as new experiences, actions and knowledge are assimilated and accommodated to involve a process of individual transformation" (Marcoul-Burlinson, 2006, p.173). Findings of a survey of alumni conducted by Devlin-Scherer, Martinelli and Sardone confirmed that these students learnt more about themselves through engagement with their

eportfolios and that this “self-awareness (was) the gateway to the development of effective reflective skills” (2007, p.403).

Walz (2006) observes that eportfolios have come to be perceived as “a major instrument in the pedagogy of student-centred learning and student-directed development” (p.195). This involves the development of metacognitive skills which will enable students to become active investigators and problem solvers. In other words, the use of eportfolios supports the student’s “development of the ability to understand and engage in the higher order thinking (which is) implicit in the definition of higher education” (Riedinger, 2006, p. 90).

In addition, eportfolios “allow students to link fragmented pieces of their academic and personal activities into a trajectory of their educational and professional development” (Walz, 2006, p.195). As claimed by Batson (as cited in Tosh, Werdmuller, Chen, Light & Haywood, 2006, p.26), eportfolios alter “the dynamic of learning pedagogy where students are active participants in their learning”. This change encourages student engagement and student control as well as facilitating learning at a deeper level. Accordingly, students can achieve what is described by Field as true autonomy which is the “freedom to learn outside the teaching context and the ability to continue learning after instruction has finished” (2007, p.30).

Eportfolios have several synchronicities with the UK-based personal development and planning (PDP) movement which was implemented between 2005 and 2006. Its objective is to enhance students’ employability and it assumes a shift towards student-centred learning and the emergence of the autonomous learner (Doig et al.,2006). With the aim of making learners more effective, independent and confident, PDP emphasises reflections, action plans and self-assessments. In addition it helps learners relate their learning to a wider context, articulate personal goals, evaluate progress towards their achievement and encourage a positive attitude to learning throughout life (Moffat, 2008, p. 7). Another aim identified by Marcoul-Burlinson is to enable graduates to adapt easily to a “working environment perceived as ever-changing” (2006, p.170).

One of the most significant themes in the literature is that eportfolio pedagogy can facilitate reflection. This approach to learning was established by Dewey. He defined reflection as “active, persistent and careful consideration of any belief or supposed form of knowledge” (1933, p.18). This definition was further developed by Kolb who described the reflective practice as a continuous cycle of “concrete experience, observation and reflection, formation of abstraction and concepts, and testing in new situations” (1984, p. 172). More recently reflection has become generally accepted to be an “active, deliberative cognitive practice” which reviews an aspect of work-based practice by describing, analysing and evaluating to inform learning and thus enhance the performance of the practitioner (Doig et al., 2006, p.159). Boud (2001) defines reflection within an academic programme as bringing into focus activities such as workshops and student’s prior learning as examples of past experience or concurrent activities in the learners’ workplace that act as a stimulus for learning. In terms of enhancing the outcomes of eportfolios, Reidinger adds that reflection creates “a narrative of exploration and learning” which transforms the portfolio from being a repository of learning experiences only (2006, p. 91).

Findings

Perspectives of the stakeholders

The following information has been gathered using discussion groups and informal interviews over the past eighteen months regarding the experiences of staff and students in the introduction of eportfolios. The main focus is the cooperative education course in the School of Languages and Social Sciences where the writers are coordinators of the two streams. The School of Hospitality and Tourism involvement in the RELT Project lasted a semester only, mainly due to the departure of the coordinator who had the necessary expertise. However, the preliminary findings of a longitudinal

study of student satisfaction conducted by staff in the School of Education Te Kura Matauranga are available (Gerbic, Lewis & Northover, 2009). The sample included students enrolled in the three Schools. 83% of the students identified the greatest challenge as being able to use the technology and few recognised the learning gains facilitated by the eportfolio (p.329).

A key player in the implementation of eportfolios and the on-going development of the Mahara software since 2007 has been the Faculty of Applied Humanities Flexible Learning Advisor. She has been involved in the introduction of the Mahara software to staff and students across the Faculty. Her initial experience working with the Bachelor of Education staff and students was somewhat fraught. There were no computer laboratories on the North Shore campus which impeded the necessary “learning by using”. The software at this early stage was unreliable and unstable which had a negative impact on the necessary “buy-in” of many of those involved. The new initiative was not sold well as the introduction of the innovation was poorly thought through and somewhat haphazard. Ultimately, the students perceived it as an imposition, not an opportunity. Accordingly, the training was poorly attended by the 100 students. The response of staff was similar as many resented it as an additional burden. Those who did attempt to familiarise themselves with the eportfolio technology did so only for a short time and subsequently, without practice, forgot the processes.

However, with time and more exposure, participation levels and the design and outcomes of the eportfolios improved. Despite this, the Education staff at the end of 2009 expressed their disappointment that their students’ portfolios were mostly text-based and lacked visual images. When the RELT team reviewed the eportfolio options for 2010, two of the Schools involved were dissatisfied with the Mahara software and two thirds of the team supported the exploration of Pebblepad as a better alternative. However, this was seen as too costly in the immediate future and the decision was made to host Mahara internally. This was expected to increase the number of functions, streamline the log-in process and guarantee timely IT support.

Whilst the Flexible Learning Advisor provided the same level of support to the Departments of Languages and Social Sciences in terms of the introduction of Mahara and eportfolios at the beginning of 2009 to Co-op students, the outcomes were very different for both staff and students. Initially, the training opportunities were well attended by both cohorts and the up-take appeared positive and enthusiastic. The video guides entitled Take a Tour were popular as they introduced the features of the software: logging in, resume creation, blogging, up-loading resources and creating views. These could be re-visited to maintain the acquired skills.

It was anticipated that the new technology would enable better communication between academic supervisors and students. The reflective journals would be transferred to the eportfolio blog and progress could be more easily monitored. The transportability of new format was seen as advantageous as was the potential to communicate and record the students’ progress and provide evidence of learning in a wider range of media types.

However, whilst most of the Languages students continued to make progress and their academic supervisors sustained their efforts, their peers in Social Sciences found the challenge too great. Informal surveys in both departments of the students’ perceptions of the traditional paper versus eportfolios confirmed the variation in levels of up-take. The primary difference between the two groups of students, was that the Languages cohort had previous experience of using ePortfolios in the BA compulsory courses.

BA compulsory courses

In addition to their major, minors and electives, all students enrolled in the BA at AUT are required to take compulsory courses to develop their information technology (IT), English writing and communicating skills. These have been identified by employers as being desirable in new graduates.

In general students enrolled in the Psychology, Social Sciences, Criminology and Conflict Resolution majors take Research and Analysis, IT, Communicating, Writing, and Cooperative Education. These courses were originally developed when the BA qualification was first offered at AUT in 1995.

New compulsory course options have since been developed in the Department of Languages which incorporate new media in order to develop these same skills in writing, communicating and IT. In general students enrolled in the Languages majors undertook: iWrite, iCommunicate, iReflect, iResearch and Cooperative Education. IT is integrated in all of these courses, rather than being taught as a discrete subject.

iWrite develops writing skills through the exploration of new media, such as fan fiction, blogs, web design and publication. Students are assessed through an eportfolio, which is showcased online.

Students subsequently enrol in the course entitled iReflect which aims to further develop academic writing skills. Through a reflective eportfolio, students are encouraged to write critically and reflectively in order to improve their reflective practice as well as to develop learner independence. This course was developed specifically to prepare Languages students for the capstone Cooperative Education course as there had been very little reflection integrated into their previous courses. It is important to note here that the eportfolio platform that was used in iReflect was Mahara; the same software that was later adopted for Cooperative Education.

Perceptions of the eportfolio

Languages students

Due to prior experience with the Mahara software, Languages students who attended the Co-op eportfolio training session required little support in creating a blog, creating a 'View' and giving access to the Languages Co-op Coordinator. Those students who were less familiar with the software were assisted by their peers as well as the Flexible Learning Advisor who was in attendance.

Twenty-four of the 27 Languages students who completed Co-op in 2009 submitted an eportfolio. Two of the three students who did not, were mature students who had decided at the outset that they preferred the paper-based medium.

Feedback received through a survey revealed that many students could see the benefits of an eportfolio over a paper-based portfolio. They commented that the eportfolio saved time, was convenient and portable, and it enabled them to upload a variety of files which were easily organised. However, some students acknowledged that the software was complicated and could be improved.

When asked if more training was necessary, some students felt that further guidance regarding specific functions, such as uploading sound files and creating folders would be of use. One student felt that no further training was necessary if the eportfolio was worked on regularly. Another felt that having completed the iReflect course was sufficient preparation.

However, despite the apparent benefits of familiarity with the Mahara software, the Co-op eportfolio did create some issues. The use of an eportfolio in the context of Co-op and a work placement was new. However, students were certainly engaging with the eportfolio to record their thoughts and observations in the form of a reflective learning journal. Some were attaching documents of evidence into their blogs, and a small number managed to paste completed tasks from their work placement into the blog itself. This unstructured use of the eportfolio made it difficult for the Coordinator and Academic Supervisors to envisage what the final eportfolio would look like and left most wondering how they could be assessed fairly against the marking criteria.

As this was a new initiative, there were no models of previous Co-op eportfolios that could be shown to students. Based on discussion with the Languages Paper Coordinator, the Flexible Learning Advisor created a template. This outlined a possible structure for the eportfolio to ensure that all content and criteria had been covered. More importantly, it provided a framework that would ensure easy navigation for the viewer (marker). The template provided a 'homepage' with headings, brief text descriptions and links to uploaded documents, as well as evidence of various forms. Such a structure enabled the viewer to see the portfolio as a whole, and eliminated the need for scrolling down vast amounts of text on the screen.

Social Sciences students

In contrast, the Social Sciences students who had not had the benefit of these new, customized courses, did not sustain their efforts to engage with the eportfolio. After the initial introduction of the eportfolio at the training session for Social Sciences students and discussion of its benefits, students watched the training videos. However, they were not encouraged to practise the software's functions at the time of introduction. Consequently they lacked the skills to work independently and subsequently lost motivation to take advantage of the alternative delivery. This also may have been affected by not all students having access to a computer during the training session.

The student survey confirmed that the software was complicated and hard to use. Many students stated that they preferred to hand in a hard-copy. All students who responded to the questions regarding the necessity of more training felt that it was indeed essential.

At this point, students in both cohorts were informed that the submission of an eportfolio was not compulsory. Students who chose to submit a paper-based portfolio would be marked according to the same marking criteria as the eportfolio regarding content, depth of reflection, academic writing and amount and quality of their evidence.

With too many challenges, inadequate support and other academic commitments, most Social Sciences students decided to revert to the paper-based portfolio. Those few who persevered, also eventually opted for the more familiar, safer option. No eportfolios were submitted by Social Sciences students.

Academic Supervisors

Languages

Perceptions of the eportfolio also differed across the Departments of Social Sciences and Languages. As students were familiar with the Mahara software, Languages Academic Supervisors were not required to give technical support to students. Students could refer to the FAQ (Frequently Asked Questions) and technical support through AUTonline (AUT's online learning platform). Students were also encouraged to post any questions they had into an online forum to get a response from the Flexible Learning Advisor. This trouble-shooting option was also available to Academic Supervisors.

Feedback was sought from Languages Academic Supervisors on completion of the eportfolio project. There were varying perceptions in terms of useability and its overall benefits to students in the Cooperative Education context. Marking was an issue that was raised on several occasions in informal discussions. Despite the initial resistance to marking on screen, one academic supervisor reported becoming accustomed to the process. Nonetheless, the linear nature of a hard copy and turning pages was preferred to the opening and closing of documents and links on a screen. However, it was also noted that the overall depth of reflection was lower than in previous years when students produced a paper-based portfolio. This could be due to the nature of the electronic medium which often lends itself to brevity and conciseness.

The possible impact on the quality of marking was also raised. One supervisor felt there was a danger of being less thorough when marking online. It was also suggested that perhaps making general written comments was less effective and of less benefit to students. Another supervisor reported the exact opposite as the marking was more thorough and re-visiting previous sections was more likely on line.

The Co-op Coordinator for Languages felt that the electronic platform lent itself to a more holistic approach to marking. Also, the overall length of some sections of the eportfolio appeared briefer than in previous years. However, this was not perceived as a negative outcome as the overall workload of the Co-op course had been of concern amongst both staff and students for several years. The Coordinator felt that students in general were completing their eportfolio assessment earlier than the majority of paper-based portfolios which have been submitted close to the deadline in previous years. It is also possible that the different sections of an eportfolio are seen as smaller, achievable goals that can be uploaded on completion compared to a hard-copy which can be considered as one long, sustained piece of writing.

The eportfolio also eliminated the need for a table of contents, page-numbering, numbering of sub-sections, and cross-referencing to appendices which are often time-consuming for students to complete accurately and complex for markers to navigate.

Social Sciences

Some Social Sciences Academic Supervisors made an effort to engage with the software. Others were less enthusiastic. Cooperative Education in general has been viewed as time-consuming in itself, without the additional pressure of being introduced to unfamiliar technology. Some Academic Supervisors felt this additional burden was unacceptable. This has not just been the case with the introduction of the eportfolio. Some lecturers have also been slow to embrace new technologies with regard to learning and teaching developments. Only recently have several lecturers become familiar using AUTonline.

Those supervisors who were open to the concept of an eportfolio reported that they did not find the Mahara software intuitive. In addition to this lack of buy-in from Social Sciences Academic Supervisors, the Coordinator herself was unconvinced the steep learning curve required for staff in their attempts to master the technology, was justified by the potential benefits.

Discussion

The different levels of students' engagement with the eportfolio across the departments supports Hirvela and Sweetland's (2005) proposition that to be successfully implemented, eportfolios must be carefully integrated into the curriculum. Familiarity with the software and previous experience of combining technology with learning provided an excellent platform and enhanced the Languages students' readiness to produce an eportfolio. In addition, the process was less challenging as much of the necessary mastery of the software had occurred.

Gerbic et al. (2009) use Brown's concept of the time triangle to describe the time required for new students to acquire the pedagogy, technology and content of eportfolios. Initially, they focus mostly on the technology. This was a deterrent for the Social Sciences students as they considered the demands of their study programmes precluded the additional learning required. This was exacerbated by most of their Academic Supervisors lacking what Stefani et al. describe as "e-learning maturity". Thus they found the paradigm shift and mastery of the technology too demanding and burdensome (2007, p. 55). Gerbic et al. describe how the time triangle inverts for "veteran" students and staff so more time can be dedicated to the other aspects of the eportfolio process.

Another challenge of this innovation is the shift in the teacher's role. Instead of imparting knowledge in a one-way mode of instruction, the emphasis is on facilitation. This may be perceived as more time-consuming and too difficult given the other demands and constraints accompanying the role (Kohonen, 2002). In addition, the feedback to students is more individualised and must be responsive to a range of student readiness and independence. Tosh et al. (2006) add that teachers must also be motivators and create an environment where learners engage because they want to rather than having to.

Conclusion

Initiating an eportfolio in an educational context is a complex process. One of the barriers is the variation in lecturer capability in the use of Web 2.0 tools and considerable professional development is required if they are to acquire the requisite skills. The need for enhancement of students' IT literacy is also necessary as confirmed by the study of the student experience of eportfolios across the Faculty of Applied Humanities (Gerbic et al., 2009) which found that 83% of students considered the use of the technology as the greatest challenge.

However, some progress has been made in terms of the establishment of an eportfolio culture. Future success in the School of Languages and Social Sciences will be dependent on the intensification and frequency of training for staff. Their engagement and commitment to the implementation of eportfolios in Cooperative Education are crucial factors in encouraging and supporting the engagement of their students.

More attention must be paid to promoting the potential and currency of eportfolios as a learning tool which nurtures the development, reflective practice, workplace readiness and autonomy of students. Students themselves also need to be convinced of the learning potential of eportfolios. There is certainly room for improvement in the implementation of the new technology and perhaps a more user-friendly platform such as Pebblepad would accelerate the pace of buy-in from both lecturers and students. However, much has been learned from the inaugural attempts to implement eportfolios in Cooperative Education and on-going reflection and evaluation is required to ensure its success in the future.

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Using poster presentations as assessment of work integrated learning

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Background: The ALTC WIL Scoping Study identified a need to develop innovative assessment methods for work integrated learning (WIL) that encourage reflection and integration of theory and practice within the constraints that result from the level of engagement of workplace supervisors and the ability of academic supervisors to become involved in the workplace.

Aims: The aim of this paper is to examine how poster presentations can be used to authentically assess student learning during WIL.

Method: The paper uses a case study approach to evaluate the use of poster presentations for assessment in two internship units at the [NAME OF INSTITUTION]. The first is a unit in the Faculty of Business where students majoring in advertising, marketing and public relations are placed in a variety of organisations. The second unit is a law unit where students complete placements in government legal offices.

Results: While poster presentations are commonly used for assessment in the sciences, they are an innovative approach to assessment in the humanities. This paper argues that posters are one way that universities can overcome the substantial challenges of assessing work integrated learning. The two units involved in the case study adopt different approaches to the poster assessment; the Business unit is non-graded and the poster assessment task requires students to reflect on their learning during the internship. The Law unit is graded and requires students to present on a research topic that relates to their internship. In both units the posters were presented during a poster showcase which was attended by students, workplace supervisors and members of faculty. The paper evaluates the benefits of poster presentations for students, workplace supervisors and faculty and proposes some criteria for poster assessment in WIL.

Conclusions: The paper concludes that posters can effectively and authentically assess various learning outcomes in WIL in different disciplines while at the same time offering a means to engage workplace supervisors with academic staff and other students and supervisors participating in the unit. Posters have the ability to demonstrate reflection in learning and are an excellent demonstration of experiential learning and assessing authentically.

Keywords: Work integrated learning, assessment, poster presentations, industry engagement.

Background

The purpose of this paper is to demonstrate how poster presentations benefit work integrated learning (WIL) experiences for key stakeholders by providing academic supervisors with an effective method of assessing student learning, facilitating the sharing of student experiences, and by engaging industry and community partners more fully in the academic aspects of WIL.

While poster presentations are commonly used for assessment in the sciences, they are an innovative approach to assessment in disciplines such as business, law, and the humanities. This paper argues that poster presentations are an approach that overcomes many of the substantial challenges of assessing WIL.

The paper uses a case study approach to discuss the use of poster presentations for assessment in two WIL units at Queensland University of Technology. After establishing a context and broad understanding of WIL, the paper provides a more specific discussion of WIL at Queensland University

of Technology and describes the two internship units where poster presentations are part of the assessment. Using posters in assessment is discussed, including establishing criteria to assess posters and the benefits of poster presentations, particularly in WIL experiences, are outlined.

Work integrated learning and internships

Work integrated learning (WIL) describes “programs where academic and professional learning are situated together within the work environment as part of a student’s formal course of study” (Franz, 2007, p. 1) and is one widely-used term to describe situations where students spend time in a workplace setting as part of learning. The WIL Report, a comprehensive scoping study of work integrated learning developed by Australian Collaborative Education Network (ACEN) and funded by the then Carrick Institute (now Australian Learning and Teaching Council, ALTC), identified work integrated learning as “an umbrella term for a range of approaches and strategies that integrate theory with the practice of work within a purposefully designed curriculum” (Patrick, Peach, Pocknee Webb, Fletcher & Preto, 2008, p. iv). Work integrated learning brings “a dual emphasis on the development of both the learner and the organisation... [or] contextual learning founded on the theory of constructivism because learners make meanings by contextualising the content within the learning environment in the workplace” (Delahaye & Choy, 2007, p. 3).

The WIL Report found there is a need to develop innovative assessment methods for WIL that encourage reflection and integration of theory and practice within the constraints that result from the level of engagement of workplace supervisors and the ability of academic supervisors to become involved in the workplace (Patrick et al, 2008, p. 42). The report also highlighted the importance of “universities and employers working together to develop mutually beneficial and sustainable relationships” (Patrick, 2008 et al, p. 39).

The internship is one type of a range of WIL experiences. An internship is well described as a “three-way partnership between the educational institution, the student intern, and the organisation where the interns take on the challenges of a program of systematic experiential learning” (Inkster & Ross, 1998, p. 6) There are typically three major stakeholders in an internship program - the student, the academic supervisor, and the work-based supervisor as industry or community partner. Each of these partners gains significant benefits from internship programs. Students gain real-world experience; academic programs’ reputations grow and employers gain an improved pool of student applicants who have been ‘trialled’ from which to recruit for fulltime employment (Patterson, 1999). One ongoing challenge for internship programs is to determine the most appropriate assessment that satisfies the requirements of all three partners.

An internship is typically characterised by four elements; i) a specified number of work hours, ii) the work may be paid or unpaid, iii) academic credit is awarded, and iv) oversight is provided by a university representative and a corporate counterpart (DiLorenzo-Aiss & Mathisen, 1996, pp. 71-73). An internship is often completed while students are enrolled in other academic subjects (Thiel & Hartley, 1997). One key benefit of an internship is it provides students with the opportunity to put classroom knowledge into practice in real, dynamic settings. This opportunity can provide students with mentoring and training which further strengthens their transferable skills and abilities, solidifies their sense of work ethic and enhances confidence in their job performance (Kane, Healy & Henson, 1992). Assessment of learning in internships is a significant issue for academic supervisors (O’Toole, 2007). When such an authentic program of study is designed, this real world experience needs to be reflected in the manner of assessment.

Work integrated learning and internships at Queensland University of Technology

Work integrated learning is a central part of the philosophy and approach to learning and teaching at Queensland University of Technology. Queensland University of Technology is strongly positioned as 'a university for the real world'. This positioning is evidenced through its goals of achieving practical, work integrated and professional experience for its students (Queensland University of Technology Blueprint, 2008).

Over the past three years, significant and focused work has been undertaken across Queensland University of Technology to broaden iterations of WIL both in and outside curriculum, and to refine and develop units with a WIL element, particularly internship units. The university is working towards a more systematic approach to the offering and coordinating of these activities and in particular to their assessment. Internship units in Faculty of Business and Faculty of Law at Queensland University of Technology are the case studies underpinning this paper.

Internship in Business (AMB310)

The Internship unit AMB310 is an elective unit available to business students in their final year of study with majors in the disciplines of advertising, international business, marketing, or public relations. Students complete a minimum of 120 hours work placement with approved industry and community partners in their discipline area during a 13-week teaching semester. Placements are undertaken by students in a very wide range of organisation types, reflecting the diversity of practice areas for the disciplines.

Students undertaking the AMB310 unit receive a grade of satisfactory or a grade of unsatisfactory. To satisfactorily complete the unit, in addition to completing required hours of work placement, students must contribute a minimum of five entries to an individual reflective blog on the Blackboard site, complete online careers modules developed by Queensland University of Technology Careers and Employment, and satisfactorily complete three assessment items. The three specific assessment items are an internship plan, a job application, and a poster presentation.

The poster presentation was introduced in Semester 1, 2009 replacing a written report and individual class presentation. The aim of the poster presentation is for students to provide a review of the internship and reflection on their learning experiences and development of capabilities. Each student prepares a poster between A2 and A0 size, using text, photographs, and images. Students link back to the goals, objectives and activities set and described in the internship plan. Scaffolding is provided in class workshops and online learning activities encouraging students to build goals and objectives around the Queensland University of Technology Graduate Capabilities. Guidelines to prepare posters are provided on the unit provided on the Blackboard site, along with links to websites and resources illustrating how to create effective posters, and short video of poster showcase from a previous semester. Exemplars of posters were also provided to students during class workshops. A criteria sheet with descriptors for satisfactory/unsatisfactory poster presentation is provided.

The poster showcase is held in the final week of semester. The showcase is modelled on poster sessions at academic conferences, with posters on display and students presenting a brief overview of their internship, as part of discussion with peers, academic and workplace supervisors. Invited guests at the showcase include workplace and academic supervisors, industry and community partners, and staff from across the broader Queensland University of Technology community.

Internship in Law (LWB420)

The Internship unit LWB420 is a final year unit in the Queensland University of Technology undergraduate law course. The unit is offered in Semester 1 each year. During a 13-week teaching

semester, students complete placements for a minimum of 60 hours in the public or community legal sectors. The unit is graded on a scale of 1 to 7, and the assessment comprises a poster presentation, critical incident report (based on a reflective journal) and the supervisor's assessment. Posters were introduced in 2009 to replace a class presentation. Students are required to produce a poster on a self-selected topic related to their placement. The posters are presented at a Poster Session that is attended by supervising lawyers, other legal practitioners, academics from the Faculty of Law, and members of the wider Queensland University of Technology community. The Poster Session is held in week 11 of the semester and follows a similar format to the AMB310 Poster Showcase. LWB420 students are also required to submit an abstract describing the thesis of the poster and a one page handout explaining the poster. The purpose of the poster assessment was to enable students to demonstrate their learning in the placement and to learn from the experiences of others.

As with AMB310, students are provided with a detailed task description giving guidelines for the poster preparation, tips for poster preparation, guidance on abstract writing including a worked example, access to an online visual design module to assist in poster design, a step by step example of the process of preparing a poster, examples of students posters from previous years, and a link to the YouTube clip demonstrating a poster session. Students must discuss their proposed poster topic with their workplace and academic supervisor and are encouraged to submit a draft abstract for feedback prior to commencing work on the poster. The abstract is an important part of the planning of the poster. The posters are assessed using a detailed criterion referenced assessment sheet which is provided to students with the assessment task description.

Assessment using posters in internships

There are a number of learning theories that have influenced contemporary approaches to WIL, including experiential learning theory (Milne, 2007), and the constructivist approach to learning (Wertsch, 1991). Milne's (2007) argument for experiential learning theory as a pedagogical foundation for WIL rests on the transformative process by which knowledge is created. Kolb (1984) defines experiential learning as "a process whereby knowledge is created through the transformation of experience". Here, knowledge is created each time a learner acts – they interpret their experiences and the consequences of their actions on each occasion, and use this feedback to transform their experiences into knowledge. The constructivist approach asserts that learning is 'situated' within a particular context – that is, the value and meaning of experiences is constructed relative to the context in which the experience occurs (Wertsch, 1991).

These influences on WIL impact on approaches to, and selection of, assessment tasks. For this paper, the selection of posters as an assessment task is discussed, specifically criteria used in assessment and the benefits of poster presentations.

Criteria for assessment of posters

To ensure that posters are fairly and consistently assessed, criterion-referenced assessment should be used as it is considered to be more pedagogically sound than norm-referenced assessment because it is based on the principles of validity, reliability and transparency (Biggs, 2003). A detailed assessment rubric assists students to understand what needs to be included on the poster (Stewart, 2008). Criterion referenced assessment is adopted in the case study units based on these observations and as a requirement at Queensland University of Technology.

Summative assessment of posters in the humanities is an innovative practice and there is little precedent to suggest appropriate criteria or performance descriptors for assessment. However, literature in relation to assessment of posters in the sciences does provide some guidance. Bracher, Cantrell and Wilkie (1998) suggest poster presentations should be assessed on four areas: preparation, poster, presentation and discussion. Students can also be assessed on their ability to present their poster in a simulated conference environment (Denzine, 1999).

The criteria for assessment of a poster can be broadly categorised as content, research and the aesthetic component (Stewart, 2008; Conyers, 2003; Levine-Rasky, 2009). One aspect of posters in the humanities that may be different from scientific posters is that where students are encouraged to be creative in their poster design and to minimise text, it may be difficult for the assessor to adequately assess content and research based on the poster alone.

In the case study unit AMB310, while students draw on provided guidelines and resources about poster structure and development, there is limited specific discussion with academic supervisors about the poster. Content and research components are drawn from learning activities and reflective writing in blogs undertaken throughout the semester. Students are encouraged to develop their posters to present both their own style and the environment and culture of their internship organisation.

In the case study unit LWB420, students are required to discuss their poster topics with both the academic and workplace supervisors. They also give a brief in class presentation of their poster and submit a one page handout which assists in marking. In future the handout will be increased from one to two pages to enable students to adequately explain their content and provide references. The option of requiring students to submit a research record (as suggested by Conyers, 2003 and Sisak, 1997) to assist in marking the research component is also being considered.

Conyers (2003) suggests criteria for the aesthetic component of the poster should include balance, visual effect, correct grammar and spelling and logical organisation of information. Criteria suggested by Newbrey and Blatezore (2006) in relation to the aesthetic component relate to the poster title, content structure, explicit flow of information, readability of the text and creativity.

Various criteria have been suggested for the poster content. The particular criteria adopted will depend on the task description and topic and purpose of the poster assessment. The criteria suggested by the literature for assessment of content scientific posters may not be applicable in the disciplines of business and law, or specifically for the WIL context.

Newbrey and Blatezore (2006) suggest the following criteria in relation to content for a scientific poster: the introduction provides the basis of investigation and the approach to answer the question; the results are presented and are understandable; the results support the conclusions drawn; the conclusion follows from the original intent given in the introduction; the poster is self-explanatory; and the poster does not contain spelling and grammatical errors.

Content criteria suggested by Conyers (2003) for posters in nursing education are how well the poster reflects the agreed topic, whether it is pitched to the target audience and how well the topic choice is supported by related evidence; “research marks are awarded based on the literature explored during the process, as evidenced by the inclusion of a reference list.”

Fuller (2000) suggests criteria for assessment of posters in teacher education as being: introduction; sufficient evidence presented; evidence relates to the most important aspects of the question; evidence is organised; value of evidence in terms of source and recency; evidence supported by references; reasonableness of the conclusion; reference list; appropriate amount of content; display of content.

Scott (2005) suggests the following criteria for posters in environmental law: design; informative; acknowledgement of sources; logical message/conclusion; oral presentation; integration with program of study; critical analysis of issues; identified areas for future research; overall impression.

The criteria drawn from the literature were adapted in the two case study units to suit the discipline area, the assessment task, and the WIL context of the unit.

The criteria used for assessment of posters in LWB420 are:

- Thesis (significance of topic and its relationship to the placement);

- Abstract (clear and concise, inclusion of essential information and central thesis);
- Choice of content (currency, significance, relevance to central thesis);
- Critical analysis of issues;
- Research (use of relevant and scholarly sources);
- Referencing;
- Visual appearance (appealing, professionally prepared, use of colour, graphics and font, arrangement of text and graphics, readability);
- Organisation of poster.

Descriptors for each criteria on a 1 to 7 scale are provided, with the criteria weighted, with marks for visual appearance and organisation being worth only one fifth of the total marks for the poster.

The criteria used for assessment of posters in AMB310 are:

- Poster presentation (visual appeal, clear layout, professional presentation, meets size guidelines)
- Poster content (identifies student and organisation, uses reflective writing frameworks to structure content)
- Audience engagement (presentation, discussion, behavior)

Descriptors for each criteria as satisfactory or unsatisfactory are provided. The criteria are equally weighted with students having to achieve satisfactory across all three criteria, to satisfactorily complete the assessment task.

Benefits of poster presentations in internships

Posters offer a range of benefits as part of the assessment in work integrated learning units, particularly internships. There are key benefits for students. Posters are student centred, encourage students to reflect on their learning during their internship, and enable students to demonstrate their learning and to learn from other students' experiences. They are also felt to be less intimidating than standard oral presentations by enabling the flow of discussion around student experiences (Akister, Bannon & Mullender-Lock, 2000) and an ability to share these experiences with wide audiences including their peers, as well as internship industry supervisors, academic staff and other guests. Posters are particularly pertinent as an illustration of authentic assessment for courses which link theoretical constructs to practice in the real world (Akister et al., 2000) hence indicating their suitability as assessment in work integrated learning units, particularly internships. Stegemann and Sutton-Brady (2009) provide a useful summary of the benefits of posters as identified by the literature. Several studies have reported that students feel comfortable with the concept of poster presentations (Stegemann & Sutton-Brady, 2009). Presentation at a poster session is an enjoyable and rewarding experience for students (Dunstan & Bassinger, 1997). Students "showed a sense of confidence during and after the poster sessions" (Sisak, 1997, p. 1066).

Constructing a poster is an effective means of developing both research skills and creative abilities (Vujakovic, 1995; Wimpfheimer, 2004). Poster preparation allows students to become active learners (Huddle, 2000) and encourages deeper learning (Pearce & Sutton-Brady, 2003). It involves students performing a task which is "a hands-on, problem-focused activity which encourages relation of knowledge to a specific question of interest and stimulates demonstration of comprehension" (Bracher et al., 1998, p. 552). In the context of WIL, it can enable students to engage deeply in a research topic relevant to their placement or to reflect on their own learning during their placement. This analysis of students' time in industry demonstrates a level of critical thinking and deep learning which contributes to the authenticity of the assessment and encourages the development of valuable learning skills.

As a student centred assessment task, posters allow students to select their own topic and approach within the requirements of the unit, and engage in self-directed learning in planning the poster (Fuller, 2000). They choose the content and construct a presentation that most effectively conveys their central theme. By engaging in self-directed learning, students develop skills in planning and monitoring their own work (Fuller, 2000). Poster preparation also encourages clear and concise presentation of information (Wimpfheimer, 2004). According to Vujakovic (1995), the necessity to present complex arguments concisely in the poster format and without the restrictions of linear thinking requires the students to engage in deep learning by analysing and synthesising arguments.

Poster sessions promote communication skills by enabling students to interact with others in a less formal way (Grace, 2003) which leads to a greater understanding of the subject matter (Huddle, 2000). Students participating in a showcase must engage in interactive conversation with audience members (Denzine, 1999). This aspect of the assessment can be quite challenging for students who may not have previously presented work in this way (Bracher et al., 1998). Students may be required to engage in various levels of conversation; some audience members may know little about the topic and others may have an extensive knowledge and wish to discuss the topic in depth. Participation in these multiple conversations also fosters in students a sense of achievement by enabling them to demonstrate their understanding of the issue and their experience to peers and members of the profession. A showcase situation also enables students to acquire networking skills (Fuller, 2000) which are valuable lifelong learning skills required by professionals in business and law.

The authors have previously suggested that the creation of a poster in WIL satisfies the attributes of authentic assessment using Mueller's (2008) five authentic assessment attributes (McNamara, Larkin, Beatson, 2009). First, constructing a poster involves students performing a task which, in the context of WIL, enables students to engage deeply in a research topic relevant to their placement or to reflect on their own learning during their placement. Second, posters as assessment of WIL can be said to be real-life rather than contrived in the sense that they require students to complete a real project and develop skills in concisely presenting complex information which are likely to be required in practice. Third, posters are authentic in requiring students to analyse, synthesise and apply what they have learned and to create new meanings from their learning. Fourth, a poster is student-structured; the student is responsible for their individual choice of topic, and engages in self-directed learning in planning the poster (Fuller, 2000). Fifth, a poster assessment provides direct evidence of student learning because the student is required to apply and construct their knowledge. This is particularly so where students are involved in presenting their poster in a poster showcase.

There are significant, and largely unanticipated, benefits to engaging industry and community partners using posters, particularly in a showcase format, as an assessment task.

Research into WIL, including the WIL Report, consistently identifies the importance of maintaining productive partnerships to the ongoing effectiveness of WIL (Patrick et al, 2008, p. 38). An effective and authentic culture of WIL, "aspires to more holistic engagement, fostering partnerships between the university and host organisations in which host organisations legitimate students as learners" (Orrell, 2004, p. 2), along with more 'intensified engagement' with industry and community partners. Franz (2008) describes WIL as enabling "iterative relationships to develop for research, teaching and application advancing at the macro level the scholarship of integration" (p. 168).

Feedback from industry and community partners involved in WIL activities over a number of years has highlighted the introduction of the poster showcase as a key initiative in strengthening relationships and encouraging ongoing, broader relationships with Queensland University of Technology. The poster showcase has provided the opportunity for industry and community partners in WIL to visit the Queensland University of Technology campus, another opportunity to meet face-to-face with the academic staff in AMB310 and LWB420 along with other academic and professional staff at Queensland University of Technology. The showcase helps strengthen partnerships with Queensland University of Technology, but also has established and developed networks between industry and community partners. The poster showcase has facilitated stronger communication

between stakeholders in the internship, helping to create ongoing partnerships, rather than short-term approaches restricted to semester-long placement and opening opportunities for collaboration in areas other than WIL.

Conclusion

This paper has used a case study of two internship units to demonstrate how posters are an innovative assessment task in some disciplines, which provide an effective and authentic approach to assessing learning outcomes. Posters as an assessment item encourage reflection and integration of theory and practice which are desirable outcomes for WIL programs. In this paper it is suggested that criterion-referenced assessment should be used to assess the posters providing summative criteria broadly based on content, research and the aesthetic component. Posters offer a range of valuable benefits to all key stakeholders in an internship placement.

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Work integrated learning as a component of the capstone experience in undergraduate law

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Background: The “Curriculum renewal in legal education” project has been funded by the Australian Learning and Teaching Council with the core objectives being the articulation of a set of final year curriculum design principles, and the development of a model of a transferable final year program. Through these principles and the development of the model, it is anticipated that the final year experience for law students will provide greater opportunity for them to understand the relevance of their learning, and will enhance their capacity to make decisions regarding their career path.

Discussion : This paper reports on the project’s progress to date, and presents an argument for the inclusion of work integrated learning (WIL) as a component of the final year experience in undergraduate law programs. The project has identified that the two principal objectives of capstone experiences are to provide closure and to facilitate transition to post-university life. Reflective practice and Bruner’s spiral curriculum model are the central theoretical foundations by which these objectives can be achieved. Experiential learning is also increasingly seen as an essential element of a capstone experience. WIL is consistent with the objectives of capstones in focusing on the transition to professional practice and providing opportunities for reflection. However, the ability of WIL to meet all of the objectives of capstones, particularly closure and integration, may be limited.

Conclusion: The paper posits that while WIL should be considered as a potential component of a capstone experience, educators should ensure that WIL is not equated with a capstone experience unless it is carefully designed to ensure that all of the objectives of capstones are met.

Keywords: Work-integrated learning, capstone, final year experience, law

Introduction

The authors are currently completing an Australian Learning and Teaching Council (ALTC) funded research project which aims to improve capstone experiences in law through curriculum renewal. This paper will report on an aspect of the Project relating to the inclusion of work integrated learning (WIL) as a component of the capstone experience in undergraduate law courses. The concepts of WIL and capstone, or transition out, experiences are currently hot topics on the Australian university teaching and learning agenda, however, the link between capstone experiences and WIL has not been clearly articulated. Given the connection between capstone and WIL one of the issues for the Project to address is the role of WIL in the law capstone experience.

A capstone is “a crowning course [unit] or experience coming at the end of a sequence of courses [units] with the specific objective of *integrating* a body of relatively fragmented knowledge into a unified whole” (Durel, 1993, p. 223). It is an opportunity for final year students to both look back on

their undergraduate study in an effort to make sense of what they have accomplished, and also to look forward to a professional existence where they can build on that foundation. It is during the capstone experience that students transition from their identity as students into their professional identity (Durel, 1993). Given the role of capstones in facilitating closure and transition to professional practice, there is a clear link between capstones experiences and WIL.

There have been a range of definitions of WIL provided by the literature (Abeysekera, 2006). The 2008 ALTC funded WIL Report defined WIL as: “An umbrella term for a range of approaches and strategies that integrate theory with the practice of work within a purposefully designed curriculum” (Patrick, Peach, Pocknee Webb, Fletcher & Preto, 2008, p. iv). WIL encompasses but is not limited to work placements; it may also include other authentic experiences that have a link to industry. The key characteristics of WIL can be said to be the centrality of an authentic experience, the integration of university learning and practice, collaboration between universities, industry and students and the award of academic credit (Abeysekera, 2006). WIL is often seen as a means of developing graduate attributes and employability skills and in response to the growing demand for graduates to be “work-ready” many Australian universities have recently increased the emphasis on WIL “with the inclusion of WIL goals in institutional strategic directions and the provision of internal structures and support” (Patrick 2008, p.3).

There is no existing culture of WIL in undergraduate legal education in Australia; traditionally students complete practical legal training (either as part of a course of study at an educational institution or as part of graduate employment) after they have completed their undergraduate course. Employability skills are generally addressed during practical legal training rather than in the undergraduate course. With the emphasis on content dictated by the so-called “Priestley 11”, being the subjects required for admission into legal practice, legal education has been slow to embed skills and graduate attributes, and WIL has played a limited role. Further, the existence of post-degree practical legal training means that the role of WIL in the context of capstone experiences in legal education is unclear.

This paper will examine the role of WIL in legal education and particularly its place as part of a capstone experience. First this paper briefly outlines the ALTC funded Curriculum Renewal in Legal Education Project. Second it provides an overview of the Project’s findings in identifying principles for capstone experiences, particularly in legal education. These findings are the result of a review of the literature and input from the Project’s reference group. Third the role of WIL as part of a law capstone experience is explored. Given the emphasis of WIL on employability skills, this paper will suggest that the role of WIL in undergraduate law capstone experiences is primarily to aid the transition to professional practice by providing opportunities for reflection, consolidating university learning in an authentic environment and developing resilient graduates. Thus it may be argued that capstone experiences are an example of WIL (Coll et al 2009). However, it is the authors’ view that WIL is limited in providing closure on undergraduate education, particularly where the experiential component of WIL depends on a work experience which is not controlled by the University. WIL also has limitations where the University teaches to large student cohorts with diverse learning outcomes and / or professional destinations, or where the discipline is largely delivered externally. Therefore the paper concludes that better view is that WIL should be viewed as one component part of a larger capstone ‘experience’, rather than a capstone experience in its own right.

ALTC Capstone Project

In 2009 the ALTC funded the “Curriculum renewal in legal education: articulating final year curriculum design principles and a final year program” Project which will achieve curriculum renewal for legal education through the articulation of a set of curriculum design principles for the final year and the design of a transferable model for an effective final year program. Currently the final year curriculum in most, if not all, Australian law schools is delivered in a disjointed way which is not engaging final year students in a genuine capstone experience that supports the development of their

professional identity and their transition out of university. This creates substantial levels of anxiety and uncertainty amongst graduates, who often complete their studies without a sense of closure, and without an opportunity to reflect on their learning. The Project aims to address these issues by providing capstone principles and a transferable capstone model.

An expert and representative reference group for the Project has been assembled, comprising specialists who (along with two members of the Project Team, and members of our Collaborative Institution teams) make up five of the six most recent Carrick Australian Awards for University Teaching (CAAUT)/Australian Awards for University Teaching (AAUT) national teaching award winners in law (Butler, Heath, Israel, Kift, and Giddings). The reference group also represents a range of institutional types (University of Western Australia representing the Group of Eight leading Australian universities, Queensland University of Technology representing the Australian Technology Network and Griffith University representing the Innovative Research Universities Australia). Importantly, the group also includes representation from the Australian Law Students' Association (ALSA), the peak national representative body for Australian students of law, along with the Australian Academy of Law (AAL). The university law schools that have agreed to participate are all either currently, or have recently been, engaged in significant law curriculum renewal and are considered to be leaders in contemporary legal curriculum design. The expertise of this group will make a significant contribution to the strategic, iterative progress of the Project and its outcomes.

Capstone experience in general

The two principal objectives of capstones that can be drawn from the various definitions in the literature are closure and transition (Heinemann, 1997; Gardner, 1999, Durel, 1993). Gardner (1999) asserts that the most important elements of a final year experience are the opportunity to reflect on undergraduate learning, integration and closure, and a holistic approach to the transition to life beyond university. Reflective practice is one means of enabling students to achieve closure and transition to their post-university life.

Closure is not clearly defined in the literature and most commentators use the terms closure and integration interchangeably (for example see Heinemann, 1997; and Gardner, 1999). In our view, closure is a wider term which refers to a culminating experience assisting students to attain a sense of what it means to be a graduate of a particular discipline. Integration is one means by which that sense of closure can be achieved. In order to achieve closure, capstones should concentrate on the integration of existing knowledge and skills rather than the acquisition of new content (Bailey, Oliver & Townsend, 2007). Integration refers to the "objective of integrating a body of relatively fragmented knowledge into a unified whole" (Durel, p223). It allows students "to pull together all the ideas presented in different courses [units] and construct some sort of integrated, meaningful whole" (Heinemann, 1997). Heinemann (1997) identifies several benefits of integration. First, it enables students to make sense of the confusion caused by differences between units and academics (for example in the use of terminology). Second it is the means by which students understand what it means to be a graduate in a particular discipline. Third, only integrated knowledge is meaningful and useful and can be applied in unfamiliar situations. Finally, integration can achieve intellectual consolidation and can allow for competence testing.

Capstones allow students to experience the complexity of their discipline, providing an opportunity to synthesise their undergraduate learning (Hovorka, 2009). A capstone should be a culminating experience in which students are asked to integrate, extend, critique and apply the knowledge and skills they have acquired in their undergraduate study (Hoffman, 2003; Myers & Richmond, 1998; Wagenaar, 1993). It may be the only subject within an undergraduate program that traverses the breadth of the curriculum, adding depth and meaning to concepts and ideas previously introduced, and encouraging students to use this synthesised knowledge to consider their future.

In addition to providing closure, capstones support and facilitate transition (Gardner & Van der Veer, 1998) and bridge the gap between university study to new endeavours (Heinemann, 2007). Comparisons have been made between the transition from high school to university and from university to professional practice (Jervis & Hartley, 2005; Wells, Kift & Field, 2008). It is during the capstone experience that students transition from their identity as students into their professional identity (Durel, 1993). The concept of transition naturally leads to career preparation and professional development (Jervis & Hartley, 2005).

There is some tension between meeting the two sometimes opposing objectives of closure and transition (Heinemann, 2007). This is exacerbated by the tendency of most commentators to focus on capstone units rather than the holistic capstone experience which may take place across a number of units of study. Existing capstone units currently may focus on either closure (and integration) or transition (Heinemann, 2007) rather than seeking to balance the two objectives. A further complication is that much of the literature in the US refers to capstones in majors rather than to capstones for an entire program. Arguably, a capstone for a major may more readily achieve closure, the focus being on bringing together the various elements of the area of study, whereas a capstone for a whole program may more readily focus on transition.

Reflective practice is a central theoretical foundation for the design and teaching delivery of capstone units (Kift et al 2008) because it enables students to achieve closure on their undergraduate learning and to transition to post-university life. Students need to be provided with opportunities to consider and reflect on what they have learned, and to discuss the ways in which their knowledge could be used in a professional context (Dunlap, 2005). Reflection assists students to integrate what they have learned with existing knowledge (Dunlap, 2005). Reflection fosters both personal and professional development (Olsen, Weber & Trimble, 2002), and contributes to the acquisition and refinement of higher order cognitive skills, including critical thinking (Forde, 2006). Baker (1997) argues that capstone experiences must allow students to critically reflect on their prior learning. A reflective component also serves to reinforce a student's sense of accomplishment. In order to facilitate integrative learning, the capstone must encourage reflection and interpretation (Fernandez, 2006).

The role of reflective practice is not however simply to assist with the integration of prior learning and the refinement of critical thinking skills. Reflective practice also includes personal reflection, with the potential for personal transformation, which has the purpose of promoting self awareness and instilling a sense of citizenship (Hovorka, 2010). Self reflection is essential for law students in order for them to develop as ethical, socially responsible practitioners (McNamara, Field and Brown, 2009). Personal self reflection is essential to the successful transition to professional practice.

Reflective practice should therefore be a key component of any capstone experience (Hovorka, 2009). To promote reflective practice, capstones should include in-class discussions or other learning and teaching opportunities that encourage reflection on key discipline knowledge; personal learning and decision making; and future planning and decision making (Dunlap, 2005).

While closure, transition and reflection are the keys to the capstone experience itself, it is also important to conceptualise the capstone as part of the whole curriculum. In this regard, Bruner's concept of the 'spiral curriculum' provides a particularly useful conceptual basis. Bruner (1960, 17) states that '[l]earning should not only take us somewhere, it should allow us later to go further more easily'. He advocates for enquiry based learning, and argues that the fundamental principles must be learnt first, and revisited later throughout the curriculum and built upon (General Teaching Council for England, 2006). This notion that the curriculum will 'revisit previously learnt material and extend it in some way' is known as the spiral curriculum approach (Bailey et al, 2007, citing Bruner, 1969, 1966). The spiral curriculum supports students in achieving an holistic sense of their studies, by "enhancing the knowledge and skills they have acquired in previous classes" (Sargent et al, 2003, 2). It also illustrates how the structure of a capstone unit must be unique within a degree, in that the focus is on synthesis and integration as opposed to new conceptual learning, although as Heinemann (1997, 4-5) insists, there might be some introduction of "entirely new theoretical material" to facilitate this. In

order to use the concept of a spiral curriculum effectively, a constructivist approach is required which ensures that previous learning is integrated into a whole which then creates for students a sense of completeness (Bailey et al, 2007, 68). By facilitating particular achievement of the final year experience objectives of closure, the spiral curriculum provides a possible framework and a strong basis from which transition from university to the work place can also be supported. Reflection can also be weaved effectively into the spiral.

Capstone experience in law

Despite the importance of capstones, the 2008 AUSSE Report stated that only 1.2% of tertiary students in Australia identify as having had a 'capstone experience' to their university studies (ACER, 2008, 16). This evidences that the final year is an under-developed component of higher education curricula generally in Australia. In law, in particular, the final year curriculum is designed and delivered in an ad hoc fashion without a solid theoretical foundation, and without guiding curriculum design principles. An audit of current legal education curricula in 2008 showed that only 19 of a total 45 relevant institutions of higher education in Australia offered some form of 'capstone' unit or program in any of their course offerings, and only one Australian law school had an explicitly named 'capstone unit' (Kift et al, 2008). Australian law schools are failing to intentionally bookend their efforts in first year program innovation with an effective final year experience (Wells et al, 2008). As a consequence, law graduates enter practice without an adequate understanding of their ethical, professional and service obligations. There is, therefore, an urgent need for curriculum renewal in the final year of legal education in Australia.

Currently, the final year law curriculum is delivered in a disjointed way (Kift et al, 2008). That is, students undertake core subjects and a selection of elective subjects which are not integrated; therefore, their knowledge and skills bases are fragmented. As a result, final year law students leave the university without a coherent whole-of-course concept, and without an understanding of the 'big-picture' (Kerka, 2001). For this reason, law schools are being challenged by lawyers, law students and graduates 'to assume greater responsibility for preparing students to practice law upon graduation, rather than simply preparing students to learn to practice law after graduation' (Trail & Underwood, 1996, 202).

Findings of the Project to date

The Project team held a meeting of the representatives from each of the collaborating institutions and the members of the reference group in February 2010 and subsequently consolidated the discussion through the online Project SharePoint site. At the online discussion stage the reference group was asked to provide input in relation to a number of questions:

1. What is your vision for the Project?
2. What will ensure a successful capstone experience in law?
3. What will ensure that a capstone experience, once implemented, is sustainable?
4. What are the implications for the Project of the different law school contexts?
5. What should be the final year learning outcomes for law students? How can we use this to inform the principles and model development?
6. What factors need to be considered in designing assessment of a capstone experience?
7. What examples do you have of successful capstone experiences that could inform the Project?

The resulting discussion contributed to the definition of a capstone experience in law; and the implementation of a capstone experience. It suggested that the design of a model or "toolkit" for capstone experiences should be transferable between law schools that have diverse contexts and missions. Favourable conditions that would be expected to exist in order to successfully implement a capstone experience should be identified including the need to adopt a whole curriculum approach; the need to provide for integration (closure) and transition and the need to adopt learning approaches and

assessment particularly suited to the capstone. This paper focuses on parts of the discussion which concerned the definition of a capstone experience, the objectives of closure and transition, and teaching and learning approaches.

At the outset, the reference group reached agreement that the Project should work towards developing principles and a model for a “capstone experience” rather than a capstone ‘unit’, a ‘final year’ experience, or a ‘transition out’. The focus is on the holistic experience which may be in the form of a single unit, a suite of units or a series of alternative modules integrated into existing units. The particular form of experience adopted by different law schools will depend on their individual mission and context. Accordingly, WIL may have a greater role in the overall capstone experience in law schools that emphasise a real world connection in their mission statements.

In relation to closure, initial discussions of the reference group focussed on providing a foundation for the development of professional identity, synthesis of knowledge and skills, the identification of knowledge gaps and areas for future development; and the provision of a culminating experience. The group emphasised the importance of synthesising knowledge and bringing together the different content areas of law in a holistic way so that it can be applied in practice in order to solve complex real world problems.

In transitioning students to professional practice, the reference group suggested that law schools should prepare students for the realities of legal practice, and in that regard the development of lifelong learning skills and resilience are important issues. Enabling students to enhance their legal skills and competencies was also seen to be an important aspect of transition.

While the reference group acknowledged the importance of preparing students for professional practice, they were also concerned that the range of different career destinations of legal graduates should also be taken into account. In this sense, students are not just transitioning to legal practice or other particular legal careers but into their role as citizens in the global human community. This is consistent with the literature relating to geography capstones (eg Hovorka, 2009) and sociology capstones (Durel, 2005) which are concerned with academic experiences that are “valuable for citizenship in the human community” (Hovorka, 2010, 253).

A number of teaching and learning approaches appropriate to the capstone were considered by the reference group. Agreement was reached that student agency and reflective practice, should be central features of any capstone experience. Other features that might be included are individual student negotiated learning contracts; an initial reflective exercise that enables students to identify what their own unique capstone experience could/should entail, involving students in the design of assessment tasks and a curriculum design approach that encourages creativity, project management, reflection, and self-management. Consideration should also be given to how technology can be used to support curriculum design and delivery in the final year of law. It was also suggested that a capstone experience should have a tangible end product for students (such as a portfolio).

Importance of WIL to capstone experience in law

Some of the objectives of capstones identified by the Project reference group and literature review can be achieved through a carefully designed WIL unit. Pedagogical literature from a range of disciplines suggests that capstone experiences may include WIL in any number of forms, including internships, research projects, study abroad programs, theses, specialist seminars, and field trips (Hovorka, 2009), thus catering to a range of individual learning styles (Bailey, et al., 2007; Gardner, 1999) and providing experiential learning opportunities which are increasingly seen as an element of capstones (Kerka, 2001, Andreasen & Wu, 1999). One of the aims of WIL is to assist students to prepare for professional practice, which is also a significant part of the transition objective of capstone experiences as identified by both the literature and the Project reference group. Specific to law, studies indicate that there is strong demand from students, who are keen to join the profession, for experiential

learning and for classes emphasising legal practice (see Rhode, 2000, for example, cited in Eckmann, 2004).

A university education must engage students, and prepare them for the demands that will be placed on them when they enter the world of work, and well-designed capstone experiences should contribute markedly to the development of a relevant professional identity (Bailey, et al., 2007). Capstones need to highlight the real-world relevance of what has been learned in the classroom, and should provide students with the opportunity to apply that knowledge in real or life-like context, drawing on the experiences of those already practicing in the field (Reid & Miller, 1997).

Capstone programs are a means of bridging the theory-practice divide (Bailey, et al., 2007) – that is, they seek to draw parallels between classroom learning and the application of that learning in the modern workplace. To prepare for professional practice, students need to be confident in their ability to perform, and the capstone experience should develop this confidence (Dunlap, 2005). Educators have a moral obligation to prepare students success beyond their undergraduate degree (Gardner, 1999). Students need to consider how their academic program has prepared them for the future, whatever that entails.

It is the authors' view that the role of capstone goes beyond the objectives of WIL, particularly in achieving the integration of the whole-of-course experience. We suggest the better view is that WIL, particularly in relation to preparation for the transition to professional practice (Orrell, 2004), might be one part of a capstone experience.

One common type of WIL referred to in the capstone literature is a work placement or internship. For example, Gibala and Stuhldreher (2001) describe an internship capstone experience for community health students. The experience involves a 12 week placement culminating in a major project that demonstrates entry level professional skills. With its emphasis on reflection and preparing students for professional practice, WIL in the form of an internship may be an ideal way of facilitating transition. However there may be some limitations to internships as capstone experiences. First, assuming the capstone experience is to be available to all students, there is the practical difficulty of finding internships for sufficient numbers of students. While models for scaling up student numbers in internships have been suggested (McNamara, 2009), these models can still not guarantee a placement opportunity for all students. Second, the internship experience may not adequately assist students to achieve closure on their university study. Given the type of work undertaken or, if a research project is involved, the nature of the project, will vary between different placements and may not be controlled by the academic supervisor, it is not possible to ensure that a wide range of different legal content areas or even legal skills are covered.

Given these limitations it is suggested that if WIL units are designed as part of a capstone experience they must ensure opportunities are provided to achieve closure as well as transition. If both objectives cannot be achieved in a single unit, a second companion capstone unit should be included. Further authentic experiences other than work placements should be offered so that all students can have the opportunity of participating in WIL. Authentic WIL learning opportunities that might be offered include problem based learning, computer simulations (Fairchild & Taylor, 2000) case analysis and role plays (Kerka, 2001).

Conclusion

The literature reveals that the two principal objectives of a capstone experience are transition and closure and that reflective practice, in conjunction with Bruner's spiral curriculum model, are the central theoretical foundations by which these objectives can be achieved. Experiential learning is also increasingly seen as an essential element of capstones. This paper has argued that some of the objectives of capstones identified by both the literature and the Project reference group can be achieved through a carefully designed WIL unit. WIL focuses on the transition to professional practice

and provides opportunities for reflection. However, the ability of WIL to provide closure on undergraduate education may be limited where the experiential component of WIL depends on a work experience which is not controlled by the University. Given the overlap between the objectives of capstones and WIL, WIL should be considered as a potential component of a capstone experience. However educators should be careful that WIL is not equated with a capstone experience unless it is carefully designed to ensure that all of the objectives of capstones are met.

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When teaching is learning – the insights of stakeholders in the Career Change Program as supported by Victoria University

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Background: In a time of an ageing workforce, meeting the needs of Victorian State Secondary schools to provide teachers for their students, particularly in the remote parts of Victoria, is an ongoing challenge. The Victorian Government is addressing this issue through the Career Change program. This teacher education program, embraces the skills and experience of individuals with either an industry background (a credit of two years has been negotiated with the VIT for a trade qualification and 8 years industry experience) or a degree qualification. There are two real advantages to this program. Schools select their own candidates to fill the specialist vacancies thereby making the judgement of the skills and abilities the candidate can contribute to the school community. Secondly, the successful candidates commence teaching on an instructor's wage whilst completing their teacher education. They have the support of a supervisor and mentor from within the school whilst completing a Bachelor of Education (VET Secondary) or Graduate Diploma in Secondary Education over two years at Victoria University. Those candidates undertaking the Bachelor Education (VET/Secondary) have the benefit of gaining the Cert IV TAA and a Graduate Certificate in VET as they are being specifically trained to teach VET in Schools. The use of praxis inquiry in these courses of study ensures that learning in the workplace through reflective practice underpins the learning that takes place.

Aims: This paper seeks to highlight the challenges and advantages of the Career Change Program through the experiences and reflections of stakeholders. The program aims to set in place practices and procedures in partnership with key stakeholders that provide a framework for sustainable recruitment, selection and education of Career Change Teachers in Vocational Education.

Method: This research draws on quantitative and qualitative data gathered over 3 years to study the experience of these 'beginning' teachers as they undertake their initial teacher education and enter the profession simultaneously. It highlights the elements of teacher education which support praxis inquiry and critical engagement with pedagogy and educational reform for mature people who are changing professions. Importantly, the research draws on a range of data collection strategies which support authentic representation of practice and the principle of collaborative practitioner research, both of which will be explored in this paper.

Results: In using the voices of participants in the program and their respective 'employers' (school Principals) this paper will provide insights into the following aspects:

- How the program is structured
- The reciprocity of the program as identified by participating schools.
- What the new teachers bring to their respective schools – How valuable are their industry backgrounds, experiences, previous education and training?
- The story from the 'new teachers' which highlight what it is like to be learning on the job – what are their perspectives
- How successful the program been in blending experiences with theoretical considerations
- How do we know that the program is effective? – How do participants monitor their own progress given that much of their learning is undertaken in isolation even though they are often surrounded by other professionals

Conclusions: This work is a benchmark practice in the University commitment to enhancing educational access, participation and success for young people in the region.

Keywords: Praxis inquiry; Career Change; Experience; Education.

Introduction

This paper describes the Career Change Program (CCP), an initiative of the Victorian Government to address teacher shortages in secondary schools in Victoria, mainly in rural areas. The program uses Work Integrated Learning (WIL) by placing the student teacher in a teaching position within a school and locating the focus of the teacher learning in the teaching experience gained in the classroom. This Praxis Inquiry model of teacher education has been developed and used in the School of Education at Victoria University (VU). Research has been undertaken by VU to quantify the value of this teacher education program to both trainee teachers and school principals. The results of this research are reported in this paper.

The need for an innovative approach to teacher education

In 2000 a Teacher Supply and Demand Reference Group was established to exchange and co ordinate accurate information relating to teacher supply and demand in Victorian schools. This group produces an annual report focusing on the outlook for teaching service in Australia over the next four years. The 2008 report predicts a shortfall of secondary trained teachers each year through to 2012 due to ‘an ageing teaching workforce which has resulted in an increased use of leave and increasing rates of attrition, combined with rapid growth in student enrolments’ (DEECD 2008:7).

Education systems and individual schools must contend with the challenges associated with teacher shortages, which is particularly linked to learning subject areas (Liley, 2005; Buckingham, 2005a). A consequence of this is that approximately 40% of secondary teachers are teaching at least one class outside their area of specialisation (Buckingham, 2005b). In the United States it is reported that about half of new teachers leave teaching after the first 5 years and that many teach outside their field of expertise (Wise, Darling-Hammond, & Berry, 1987 in Liu & Meyer, 2005). In Australia this situation has its greatest impact on hard to staff schools in rural areas but is also beginning to impact on metropolitan schools. The CCP is but one small measure to address teacher shortage through the recruitment of career-changers. These mid-career switchers, as mature life-experienced people, have been identified as a ‘big-plus’ for schools, seeking to address the challenges of teacher supply (Feistritzer, 2005).

Kolb (1984) is a recognised authority on the central role of experience in the learning process. His recognition of the paramount importance of reflective practices in interpreting and understanding experience forms the bridge between academic learning and practice in the workplace. Reflective practice based on work experience mitigates the inherent danger of mere acceptance of established practices. It may be that the CCP affords opportunity for experiential learning that not only enhances graduates’ competence but also has the potential to produce critical change agents. This examination of learning is crucial to the need to defend the CCP from allegations that, like other ‘alternative programs’, it is an apprenticeship model of teacher education.

The Department of Education and Early Childhood Development (DEECD) is concerned to fill teaching positions that are hard to staff. This teacher shortage is specifically related to Maths/Science, Languages, Music, Information Technology and Vocational Education and Training (VET). VET encompasses areas such as: Automotive, Electrical, Hospitality, Engineering, Agriculture/Horticulture, Building and Construction and Textiles. The CCP is designed to employ Career Change Teachers (CCTs) four days a week in schools with one day set aside for study and it includes release for weekly blocks of seminars at VU. Thus the CCP comes under the banner of what is commonly considered as alternative forms of teacher education. Critique of such programs has to date focused on whether or not program content and design, delivery and selection of candidates, guarantee a level of professional competence equal to or better than that of graduates in mainstream programs. Positing this ‘alternative program’ as a WIL model shifts the focus towards the nature of learning – a relatively neglected feature of the debate surrounding alternative teacher education.

In the United States, as in Australia, there is little evidence from which to draw inferences about best practice in the recruitment and education of career changers in these non-traditional teacher education programs. Initial findings from a national study conducted by Humphrey and Weschler (2005) suggest that more needs to be done to describe the characteristics of such programs and their effects. A 2008 report (Humphrey, Weschler & Hough) conducted an analysis designed to determine the effects of personal, program and contextual inputs on teaching outcomes in innovative teacher recruitment initiatives in the United States. This report found the elements crucial to an effective program include the school context (strong leadership, a collegial atmosphere and adequate materials), selection of candidates with appropriate subject matter education through a degree or work experience, the provision of carefully constructed and timely coursework tailored to candidates' backgrounds and trained mentors who have the time and resources to plan lessons with candidates, share curricula, demonstrate lessons, and provide feedback after frequent classroom observations (Humphrey, Weschler & Hough 2008).

These elements underpin the structure of the CCP delivered through VU. Using the voices of CCTs and their respective principals the effectiveness of this program is evaluated under the following headings:

- How the CCP program is structured
- The reciprocity of the program as identified by participating schools.
- What the new teachers bring to their respective schools – How valuable are their industry backgrounds, experiences, previous education and training?
- The story from the 'new teachers' which highlight what it is like to be learning on the job – what are their perspectives?
- How successful the program has been in blending experiences with theoretical considerations
- How do we know that the program is effective? – How do participants monitor their own progress?

How the CCP program is structured

The CCP is an initiative of DEECD and in 2004 VU formed a partnership with DEECD, the Victorian Institute of Teaching (VIT) and secondary schools who identified a teacher shortage. These schools advertise for and interview prospective teachers, employ the successful candidates as 'instructors' who teach for four days a week and allow the fifth day as a study day. DEECD pays these teachers an instructors wage, allows for CRT cover for study blocks and also pays for their study fees. VU has negotiated with the VIT to develop a Bachelor of Education (VET/Secondary) which acknowledges the industry qualification and years of experience each CCT brings to the role. This Bachelor of Education (Vet/Secondary) has VET teacher qualifications embedded in it, namely the Certificate IV Training and Assessment and the Graduate Certificate in VET, to allow these teachers to teach VET in Schools. A credit of two years has been negotiated with the VIT for a trade qualification and 8 years industry experience. Those who already have an undergraduate degree complete a Graduate Diploma of Education.

VU has structured the CCP to incorporate the full VIT registration process as a demonstration of both academic learning and practice in the workplace. The units of study do not change but the method of delivery is more intensive combining burst mode residential workshops, seminars and on-line communication as outlined below in Table 1.

Table 1 – Burst mode attendance at VU

	December	January	March	June	September	November
1 st year	1 week School observation + 1 week VU	2 weeks VU Summer School	1 week VU	1 week VU	1 week VU	
2 nd year	1 week VU		2 days VU	1 week VU		Portfolio presentation VU

The CCP also includes a two day mentor training program for principals and appointed mentor from within the school school visits by VU staff to observe CCTs and interview principal/mentor open communication with VU staff via telephone, email and a dedicated web site.

A major assessment for the CCP at the end of second year is a presentation of the portfolios they have prepared for Victorian Institute of Teaching registration. The collection of work in the portfolio is a diverse record of the CCT’s achievements based on the capability framework provided by the Victorian Institute of Teaching’s ‘Standards of Professional Practice’.

The CCP aims to set in place practices and procedures in partnership with key stakeholders that provide a framework for sustainable recruitment, selection and education of CCTs. This paper seeks to highlight the challenges and advantages of the CCP through the experiences and reflections of stakeholders.

Methodology

Understanding the suitability of the CCP for trainee teachers using a WIL approach is fundamental to the success of this program. Both principals and CCTs were surveyed at the end of 2009 and principals/mentors and CCTs were visited by a VU team member twice during the year to determine their satisfaction with the structure, delivery and feedback involved in the program. Additional data was collected from CCTs through reflective assessment tasks based within the work environment (classrooms) and peer review was used for CCTs to gain feedback on their teaching practice and contribution to the school from both colleagues and mentors. This is WIL in its truest form and quotes from these reflections are integrated into the Findings section of this paper.

Finally activities were integrated into the face to face learning of CCTs which provided valuable data on their ability to adapt to their new learning environment. Each time they attended VU, CCTs participated in a tuning protocol where they brought stories from the field to discuss among the group and received feedback on how a situation was handled particularly well or might have been handled differently. This was recorded on video and in note format and used as evidence in this paper.

Findings

The data was collated and organised according to the framework outlined on page 3, namely the reciprocity of the program, the value of CCTs prior industry experience, CCT perspectives of learning on the job, blending experiences with theoretical consideration and CCTs monitoring their own progress. The findings are outlined below under these headings. The reciprocity of the program as identified by participating schools and CCTs

Thirteen principals, just over one third of the schools cohort (35%), responded to the 2009 survey and all reported that they maintained highly favourable views of the program with comments such as (the) experience with teachers has been positive, (the CCT is) an asset beyond all my expectations. Most of

the respondent principals had been with the program for two or more years and their ongoing confidence and support for the program indicated that the program filled a definite need:

[CCP] allowed the school to employ and qualify a teacher in a hard to staff area.
It allowed the school to offer new areas of curriculum. (Principal)

Principals rated their CCTs performing at levels equal to that of other staff in their schools, and a third rated them performing above average. Principals recognised that the role of the mentor teacher was a vital support for the CCT and much success was dependent on the positive relationship and professional support the mentor provided.

One interview with a school principal revealed a mixed experience with the CCP:

At the end of 2007 I accepted a principal's position at a larger college in the district and we recruited two Career Changers. One self-recruited and he is just gold. The other recruit was a much needed motor mechanic. (Principal)

The interview revealed a desperate situation. Both the mentor teacher and the principal had made practical suggestions to this teacher yet these had not been taken up. In the mid-year reports to VU, mentors and principals are reluctant to harshly judge new recruit CCTs and it is often not until later in the year that a clearer assessment can be made by VU. The principal revealed the problem:

The kids don't work and he thinks it's not his problem, and he's not open to coaching. (Principal)

Clearly there were problems with an underperforming CCT but the real issue was that the principal felt powerless. This Principal was unaware that VU staff could be contacted and be available to work more closely with the CCT and school staff towards improved performance. Improving communications between VU and the schools, and developing the partnership approach could better serve the school's and student's needs. VU staff involved in the CCP maintains regular contact with the students but this principal's responses indicate that more sustained communications with principals and mentors is needed and would be welcomed. They and other school personnel participating in the CCP related their ongoing confidence and support for the program, articulating that the program filled a definite need:

The College has been able to add VET Automotive, VET Building & Construction, VET Engineering and VET Music (Technical Production) to the list of subjects being offered to our students. The first 3 certificated courses have been added to our Scope of Registration. (Principal)

Forty-two CCTs responded to the survey (72%) and all but one rated their potential as a classroom teacher as either high or good. The work/study balance that the program demands understandably posed a significant challenge to all participants. CCT perceptions were that schools too often made insufficient allowance for their lack of teaching experience and may not have properly understood the program such as by honouring reduced teaching loads, regular mentoring, help with reporting and assessment. A teacher with prior classroom experience wrote:

My major difficulty, except classroom management, was to combine study and the school as I have been involved in several (extra curricular) activities since my arrival at the school. (CCT)

The CCP draws a highly motivated cohort of applicants. The majority of CCTs gave their reasons for making the career change to teaching as the opportunity to pass on the knowledge and experience they have gained in industry and to help put something back into the community. Less frequently stated reasons were the on the job training, job security and the opportunity to gain a formal qualification for

work that many had already been doing (those with teaching experience). For younger CCTs the program offers the incentive of being seen as a 'good fit' with a young family and two working parents. Teaching was also attractive to workers late in their careers, typically communicated by considerations such as:

As a worn out ex-builder come cabinet maker I find my body parts wearing out and feel that although I can't build forever, I love kids and can teach longer. (CCT)

The rewards of the CCP were seen by principals as finding teachers for hard to staff subject areas, being able to introduce new curriculum into the school and engaging teachers who are performing equal to or above average to the school norm. A difficulty that needs to be addressed by the CCP team is promoting closer communication with principals to monitor CCT progress. CCTs expressed the rewards in altruistic terms of being able to give back to society whilst being financially supported through their study. The main difficulty for CCTs arose when the school demanded a workload beyond the .8 of their contract through extracurricular responsibilities.

What the new teachers bring to their respective schools through their industry and life experience

For the CCTs themselves, the program provided a means through which their industry experience was capitalised upon through the development of their teaching skills. Many CCTs involved their students in real life experiences such as offering automotive mechanical repairs to teachers'/students' cars and actual maintenance of school buildings. Most were creative in their teaching with the use of applied learning, as this remark exemplified:

I have come from a building and construction background so I believe that the best way to foster this construction is to have them (the students) create some sort of hands-on artefact around which they can base their understanding. (CCT)

One principal was adamant that having a CCT with current industry experience allowed his school to offer VET qualifications to students that otherwise would not have been possible:

Without these Career Change teachers we would not have had teachers who have the industry experience and prior industry qualifications to be able to meet the AQTF (Australian Quality Training Framework) standards. The Career Change program has enabled students in the school to include TAFE certificates in their VCE or VCAL program. (Principal)

The previous industry experience of CCTs brings new and valued skill sets to schools as one VET co-ordinator stated:

Career Change teachers have a wealth of worldly experiences, and case studies, that they are able to pass onto the students. The Career Change teachers bring a realistic and practical approach to teaching and learning in our College. (VET co-ordinator)

Principals valued the industry skills CCTs brought into the school as enabling wider curriculum being offered in the school and providing students with an opportunity to develop work skills through a practical approach to teaching.

The stories from the 'new teachers' which highlight what it is like to be learning on the job – what are their perspectives?

Resilience is often built through life experience and the following story may well have ended differently for a younger, less experienced trainee teacher. One CCT who had previously managed a motor cycle repair business, told his story in a reflective assessment task. On day two at his new school he was told to cover the Yr 8 Science and Maths classes. He was told his school could not afford a CRT and that he would be covering classes as necessary. Instead of caving in under the pressure his resilience and life experience supported him:

It got to a point where early on I felt excessive pressure and something had to change. The only thing that could change was my attitude. (CCT)

He decided to use the opportunity to build relationships with students across the school and reported that this helped him gain the respect of both students and his colleagues:

I decided I had to harden up and make the most out of what I had to do. I thought I could use this time with the other classes to build relationships with the students I didn't know, as this would make my job easier if I was to teach these students in my own class next semester or next year for that matter. (CCT)

He gained the respect of students and found the experience rewarding:

This is what made me think I was making a difference in these students, and made me proud of what I had achieved in 3 months. (CCT)

Other CCTs have expressed the impact through describing personal transformations:

Upon taking on the position of a career change teacher, I had no idea how much of an impact that it would have on my life, professionally and personally. When asked to reflect on my career change I feel overwhelmed. The impact of the new career for me has been huge. (CCT)

Another wrote of the confidence gained through dealing with and learning about people through teaching:

While I have worked in companies where an end product was the outcome nothing compares with teaching. I never considered myself a full introvert but standing in front of a classroom and the whole CCP makes you step outside your comfort zone and perform at a professional level expected of a modern day teacher. (CCT)

Yet another spoke of the emotional reward of teaching:

Becoming a teacher and being part of a local community through teaching is unlike any emotion I have experienced so far with regards to employment. It gives me a definite sense of belonging to something that is far greater than simply turning up to work and putting in eight hours. (CCT)

With sustainability as a desired outcome for the CCP, a commitment to undertaking further study by some CCTs confirmed that some achievement has been made in this direction:

I never thought I'd say this, but I think I will complete my Master of Education. Continuing to learn and develop my pedagogy (I just wanted to use this word one more time before my course ends!) excites me. I love teaching. Although I make less money than I would in private industry, the personal satisfaction I get cannot be met outside teaching. (CCT)

This is not the only CCT who expressed a desire for further study and a scan of graduates in several years time will give an indication of the sustainability of the CCP. Another teacher spoke of the passion he developed for teaching a disadvantaged group of students inspiring him to undertake further study in teaching Koorie students:

I have specifically been interested in working with socially disadvantaged Koorie students. I feel that in my school there is no other group of students more at risk. Teaching in R..... has led to a deeper understanding of Koorie students and their educational needs. It has become a passion that has led to significant personal fulfilment..... and life long career changes. (CCT)

Most CCTs spoke of a personal transformation through teaching, creating a passion they never expected and a joy in their ability to step outside their own boundaries.

How successful the program has been in blending experiences with theoretical considerations

Responding principals generally considered their CCTs had been well-prepared by VU. They recognised the role of the mentor teacher as a vital support for CCTs and much success was dependent on the positive relationship and professional support the mentor provided. Ideally the mentor would be from the same subject discipline, and regular meeting times would be routine. In the most ideal settings CCTs were able to observe classes prior to commencement of their own classes and then mentor observations provided clear feedback on teaching performance. This is echoed in the following reflection of a CCT:

While I have been teaching at the College this year I have found it extremely valuable to sit in on a few teachers and observe the way in which they teach. I was observing our head of department recently and really learnt a lot from her class. (CCT)

Teaching is a profession where the learning gained from classroom experience cannot be underestimated. The perception from Principals was that CCTs' curriculum knowledge was excellent but classroom management strategies were the area where most assistance was needed, adding that this was the same for most new teacher trainees. Such considerations were shared by the CCTs themselves and were represented through their statements:

Looking back on my teaching to date, I realise how naive I was when I first began. My classroom management plan was in place and I had definitely given thought to (it), but now it just seems like second nature. (CCT)

While the burst-mode study blocks at the university covered, and revisited, operational aspects of teaching throughout the course, these were the areas most effectively addressed by mentors in the context-specific school environment. Indeed, the CCTs' responses to questions on group work with students and student motivation showed that these aspects were significantly reduced in anxiety for CCTs when regular support from mentors was available. This program does not afford a teaching practicum and this places greater onus upon the schools to mentor and support their CCTs. The disjunct between ideal support for teachers and actual practices became more pronounced in the students' feedback and CCTs' responses fell into two distinct categories – those teachers supported and mentored by their schools, and those who were not. Buoyancy within the former group was obvious:

Without support from the staff, especially my mentor and the principal I would not be here at this stage. In addition there is nothing better than learning your job on the spot. I have acquired competencies and a lot of confidence and respect amongst students. (CCT)

That the above is the ideal and not the norm is an area for redress. From CCT feedback this would include mandated 2-3 week observation periods (for those without classroom experience), honouring reduced allotments and study blocks, regular meetings with mentors in the designated subject area, across-school recognition that CCT is a trainee that may require support regarding teaching strategies and school operations beyond subject information. One CCT had some advice to offer:

I definitely believe that an in-depth induction program needs to be implemented to ensure each student has an understanding of the individual school. (CCT)

Benefits to a CCT from this suggestion was dependent upon the school community having a thorough understanding of the program, the needs and requirements of the CCT, and active commitment to support these through appropriate timetable adjustments. As put succinctly by a CCT:

Schools should be ensuring that a new teacher is 'set up' for success as much as possible – rather than being thrown in the deep end. (CCT)

Quality mentoring within the school and the provision of a thorough induction process underpin the success of the CCP for both the school and the CCT.

How the participants monitor their own progress given that much of their learning is undertaken in isolation even though they are often surrounded by other professionals

A group of CCTs were asked to chart their level of confidence in the months from January to December in their first year of the CCP. It was interesting to note their collective level of confidence in January was at 90% and this had dropped to 60% by February and hovered around 50% during April, May and June. It began to rise at the beginning of Semester 2 and had risen to just under 80% by December, but never climbed as high again as it had been in January after their initial summer school prior to teaching. In reflecting on their levels of confidence, one CCT stated:

I came in hard at the start of the year. But the best thing (for classroom control) is building relationships. That has been most important. Not taking yourself too seriously. (CCT)

In a conversation amongst CCTs on the topic of 'Learning on the job: early discoveries', CCTs emphasised that asking questions and observing other teachers was the quickest way of learning how things were done in the school. One CCT expressed:

...when something doesn't work you know immediately... being adaptable is very important. (CCT)

The peer review assessment task required CCTs to ask their mentor and two colleagues to comment on what they perceived as their strengths and areas for improvement. The CCTs enjoyed this activity because they received positive feedback which buoyed their own perception of themselves as developing teachers. As one CCT reflected:

I can honestly say that I really enjoyed this particular task and I felt that I learned a great many things from the assignment. I learned things that I could improve on, things that I could try to incorporate into my practice, things that I did well and most importantly, things about myself that I had never considered before and now suddenly realised. (CCT)

In receiving feedback on areas of improvement, many responses included encouragement to worry less and have more confidence in their own knowledge and abilities. Some were encouraged to set goals and to move beyond the boundaries of their own classroom into the heart of the school community.

Conclusion

The evidence strongly supports the CCP as benefiting both hard to staff subject areas in secondary schools and the CCTs who participate in this innovative teaching program. The CCTs reported undergoing life changing personal transformations and the schools benefitted from the current industry skills and maturity these CCTs brought into the schools. The WIL approach in this program ensured CCTs learnt very quickly what worked and what didn't in the classroom, and the reflective approach to assessment tasks ensured CCTs were able to monitor their own learning and match theory to practice in a progressive manner. Ensuring schools have an established induction process for CCTs with strong support from mentors is imperative to the success of the program. There is a need to strengthen the communication between schools and VU to ensure difficulties experienced by and with CCTs are addressed quickly and an early intervention strategy put into place. DEECD is continuing to support the CCP and has recently committed to continuing the program over the next three years.

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Multiple Campus Operation – Challenges and Opportunities in Implementing Work Integrated Learning

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This project *Building Capacity for Work Integrated Learning (WIL)* was funded in part by a small portion of an Australian Learning and Teaching Council (ALTC) grant under the auspices of the James Cook University (JCU) Curriculum Refresh process. JCU academics from the Faculty of Law, Business and the Creative Arts visited key WIL academics and practitioners in other Queensland and Victoria universities in order to understand their commitment and approaches to WIL. The overall purpose of this research was to provide workable recommendations to the Faculty on how it could increase capacity to develop and sustain a range of WIL programs that meet the needs of a multi-campus university.

The Faculty of Law, Business and the Creative Arts offers programs at various locations including Townsville, Cairns, Brisbane and Singapore. Each location has its own unique challenges in delivering WIL programs; Townsville and Cairns have regional economic constraints; Brisbane has a high proportion of international students; and Singapore is constrained by a legal system that restricts certain WIL programs that impacts a large proportion of its student cohort. The WIL working team is endeavouring to share knowledge, align practices and develop a strategy to formally integrate WIL practices into the curriculum that is consistent across the Faculty yet still meets the unique vagrancies of each campus location.

The project has explored a diverse range of both placement based and non-placement based approaches to WIL. Comparative baseline data focusing upon Work Integrated Learning has been gathered to support strategic and tactical decision-making relating to teaching practices, student engagement, assessment and curriculum renewal. The final recommendation made to the Faculty was to adopt a hybrid version of the Victoria University's WIL model of assessment targets and findings of other universities visited during the project that suit the challenges facing JCU as a multi-campus operation.

Keywords: Multi-location, Capacity building, Best practices, Integration, partnerships

Introduction

Work Integrated Learning (WIL) is defined by the Australian Collaborative Education Network (ACEN) as 'An umbrella term for a range of approaches and strategies that integrate theory with the practice of work within a purposefully designed curriculum' (Patrick, et al., 2008, p. iv). Although there is a tendency to refer to WIL as 'work placement' it also refers to broad range of approaches including service learning, project work, simulation and virtual WIL.

Workplace learning provides students with the opportunity to demonstrate their learning in authentic and meaningful contexts (Patrick, et al., 2008) as well as to test and develop their graduate attributes (Barrie et al., 2009). Due to the emerging pedagogical value of WIL many universities have sought to incorporate WIL into the core curriculum, thus providing a range of experiential learning opportunities for students which are relevant to the real world (Billett 2001). In addition to industry placement, and constrained by the resource intensive implications of placement, some scholars are recommending serious consideration be given to less resource intensive options (Billett, 2010). These non-placement options are seen as viable alternatives and appeal to many institutions as they seek financially viable ways of providing WIL experiences to all students decoupled from finding them industry placements. In addition some students are not suited to industry placements as representatives of a university for a variety of pedagogical or professional reasons (Patrick, et al., 2008).

Embedded in the discussion of WIL provision is the risk assessment to students, employers and the university; this may take the form of OH&S, legal indemnity, staff burnout and potential student exploitation which must also be considered in designing an effective WIL program.

To achieve our stated goal of providing workable recommendations to the Faculty on how it could increase capacity to develop and sustain a range of Work Integrated Learning (WIL) programs that meet the needs of a multi-campus university, funding was sourced through the Curriculum Refresh initiative. A large part of this project has drawn on external expertise through a scoping study at a range of Innovative Research Universities Australia (IRUA) members and other universities which have developed sustainable models of Work Integrated Learning. Queensland Universities visited include Queensland University of Technology (QUT), Griffith, University of Southern Queensland (USQ) and Bond; Victorian Universities visited included Victoria University (VU), Monash, Swinburne, La Trobe, Royal Melbourne Institute of Technology (RMIT) and University of Melbourne.

The project has been lead by Dr Pierre Benckendorff (School of Business - Townsville) with a team of Faculty members included Professor Ryan Daniel (School of Creative Arts-Townsville), Ms Mandy Shircore (School of Law - Cairns), Mr Abhishek Bhati (JCU Singapore) and Mr Paul Kidd (JCUB - Brisbane). As the initial phase of this investigation has drawn together a series of findings from a literature review, observations of JCU pedagogical practices and the visits to the IRUA members (and others) which consider student, staff, employer and institutional input in how WIL programs are conceptualised, structured and positioned in their respective curriculum. It is from this data that recommendations to the Faculty have been made.

Literature

In recent years the abundance of literature relating to the theme of WIL has both showcased the varied nature of the initiative and highlighted its challenges. In the recent Australian Learning and Teaching Council (ALTC) *Work Integrated Learning: A National Scoping Study* (Patrick, et al., 2008) the authors acknowledged the benefits of WIL and the significant uptake of variations of the model. One of the key findings was the integration of 'authentic learning experiences' both within and outside the university settings (Patrick, et al., 2008). Key findings from the ALTC report mirror the challenges and issues that face the Faculty of Law, Business and the Creative Arts, these issues include:

Ensuring equity and access: ... not all students have easy or equal access to WIL experiences even those for whom the experience is mandated by professional accreditation requirements. International students, for example, are constrained by visa restrictions and/or by language and cultural differences.

Managing expectations and competing demands: ... perception by students that engaging with work placements is unjust, unfair, or too costly may overshadow the perceived benefits of the learning experience. Participants highlighted the need for a 'stakeholder integrated approach.'

Improving communication and coordination... improved communication and coordination are essential to the enhancement of a stakeholder approach that better reflects the working environment.

Ensuring worthwhile WIL experiences: ... stakeholders [need] to move towards a shared understanding of the purpose of the experience and how their different roles impact on the quality of the WIL experience. The study identifies the importance of designing WIL as an integral and integrated part of the curriculum, rather than as a 'bolt on' experience;

Adequately resourcing WIL: ... workload and time constraints for staff of universities and employers, the financial cost of placements to employers, and the inflexibility of university

timetables in enabling students to spend appropriate time in the workplace. (Patrick, et al., 2008: 23-32)

The other key feature addressed in the literature is the varied nature of approaches taken by institutions ranging from placements and internships to virtual WIL environments or E-WIL and the full gamut of blended models in-between. The point of consistency, acknowledged by all literature, is the clear benefits associated with linking theory to academic skills giving students opportunities to engage with professional bodies in order to develop work readiness skills. This in turn will assist graduates in their transition from academic culture into a workplace setting. The importance of developing generic skills to augment discipline knowledge is fundamental in all WIL discourse (Barrie, 2007; Billett, 2001).

In order to develop a successful WIL scheme it is deemed essential to focus upon clear outcomes of the program, these must be clarified and effectively communicated to all stakeholders and all material (legal contracts, rights and responsibilities, monitoring roles, assessment strategies and instruments, and reporting) must be clearly documented. If these key features can drive the program then the remaining issue of adequate resourcing becomes the final component of making WIL function effectively within the University context.

The value of the literature associated with WIL is the degree to which WIL programs are broad in their appearance; it would appear that no two institutions have the same program operating and variance, innovation and customisation are the common threads associated with WIL. The value of building a WIL program around the needs of students, local/national/international industry, institutional resources and the engagement with local communities has become a vital feature of many Australian Universities. WIL has also become a proxy for 'real engagement' with stakeholders; this can assist academics to engage with industry and seek greater comprehension of the needs and expectations of professional bodies. The knowledge gained through an effective liaison with industry and professional bodies is fundamental in the design, maintenance and growth of any WIL program. The subtle shifts in focus can be telling, as some universities develop industry links which can assist in future revenue sources through professional training programs for industry, others cement the reputation of their graduates within the industry through exposing them to potential employers. Some WIL programs work towards developing social capital though linking in with Non Government Organisations (NGOs), the recycled book project for China is a good example of how WIL can develop excellent learning opportunities across cultural borders developing strong business skills within a student cohort (Kenworthy-U'Ren, 2008).

WIL is an established part of the curriculum in some disciplines such as education (teaching), health (nursing) architecture and engineering where it is a mandatory component of the professional accreditation process (Cedercreutz & Cates, 2008). This accreditation process is a major driver and enabler of WIL in these disciplines. However for students undertaking a general Business or Creative Arts degree, WIL is not a mandatory qualification or professional practice requirement for these graduates. As a result WIL remains an elective subject in most however, the value of learning in the workplace cannot be overstated (Billet 2001; (Eames, 2000). Cedercreutz & Cates (2008) contrast the importance of subject specific technical skills with the importance of soft-skills mastery as experienced during a WIL placement program, they note:

Individual subjects...have almost no impact on student ratings because of the tremendous variety exhibited by employers in their projects and work situations.... The biggest impacts are seen in broader skills such as communication, analytical ability, problem solving etc. (Cedercreutz & Cates, 2008 p. 20)

Unlike the professions mentioned earlier many graduates from Business and the Creative Arts do not join a profession *per se*, as they not have a clearly defined technical skill-set as does a doctor, architect or an engineer therefore soft-skills mastery honed through WIL placement experiences are crucial for these graduates.

WIL has also been a catalyst in developing an opportunity to think laterally regarding the use of Information and Communication Technologies (ICT); the introduction of virtual WIL experiences have shown increased momentum and given organisations, especially those that must operate within Government restrictions associated with work visa's, greater power to provide meaningful WIL programs (Fong. & Sims., 2010). Not only do ICT facilitate opportunities but they can also aid in creating accurate documentation of the program. 'The archival feature of communication media such as email and threaded discussion boards provides rich support for review and reflection for students and academics' (Fong. & Sims., 2010, p. 56).

The literature also recognises that every WIL program requires a framework to operate successfully; the scoping study has seen the impact of good policy and institutional focus. Where processes are aligned and largely driven by a funded program leader the coordination of the pedagogy, facilitation, regulatory responsibilities, guidance, mentoring of both staff and students plus the networking and industry liaison can be achieved with great success and efficiency (Fong. & Sims., 2010, pp. 55-56).

Existing scenarios at each Campus

JCU Townsville/Cairns

Many schools and disciplines based at Townsville and Cairns have fully instituted work placement programs, however, the Faculty of Law, Business and the Creative Arts have sought to adopt a range of WIL based initiatives outside of traditional placements and internships. The newly designed Bachelor of Business has offered BU2050/3050 - Work Integrated Learning, as an elective subject which allows students who are already working in paid employment or voluntary positions to integrate real-world skills and experience with concepts from preceding and concurrent subjects. The subject involves a limited series of workshops through which students develop, share and reflect on professional practice and behaviours in the workplace. Students participate in workplace-based projects for business, industry, government or community-based organisations with which they are associated. Activities may include a field-based project, individual case studies or industry/corporate analysis. The subject also provides an opportunity for students to begin identifying and collecting data for potential areas of study, in preparation for enrolment into an honours year. A quota applies to this subject and students are selected on the basis of GPA or at the discretion of the Head of School.

In the School of Creative Arts students have been offered GA3020 - Creative Industries Research and Placement. Here students explore the creative arts industries via research projects, industry networking, professional placements and collaboration with peers. The outcomes of the research and investigation provide students with a number of additional pathways for further exploration and engagement with the creative industries.

More recently in the Bachelor of New Media Arts all third year students undertake NM3104 - Creative Exchange Project. This capstone subject allows students to contribute their acquired generic skills and discipline specific expertise to the planning, organisation and performance of a major creative project or to the production of a larger scale published work. All projects involve aspects of the wider community and industry whilst students have the opportunity to explore team-based synergies working with an internally elected Director and design/production team. This subject has proven very successful in exposing students to industry and allowing a diverse range of activities to be undertaken through team based projects utilising the expertise of most staff in the school and the economies of scale for formal instruction and reporting. Students from Business, Information Technology (IT) and Law can enrol into this subject to develop additional skills and experiences associated with WIL.

Schools within the Faculty recognise the need to develop work readiness skills throughout the degree program; these have occurred spasmodically over time and generally included the introduction of guest speakers and field work visits in first year and a range of work related activities leading to eventual work placements or project work in final year. Some of the individual scenarios that have

been used include: Manager for a day – Shadow Manager, case examples, simulations such as ‘my future’ career development website, role plays, bringing businesses to campus: ‘Consultancy clinics’; on campus presentation, non-financial audit (marketing strategy, competitive review, HR plan, training, market analysis), business venture simulation, in-house innovation challenge, Practice Firms, capstone report or workplace dissertation, ePortfolio’s, traineeships, workshops (problem solving skills, interview techniques, soft skills) and also some IT students do workplace simulations.

In a quest to develop a holistic learning environment James Cook University is also currently piloting a new initiative the Tropical Advantage Graduate Award (TAGA) which recognises and rewards students who undertake an active program of personal and career development whilst completing their degree. To achieve the TAGA, students develop and reflect upon their skills and experiences in four broad areas: academic study, work experience, personal interests, and elective activities, including workshops, external courses and training.

It is intended that working towards achievement of the TAGA will provide a structured system for degree students to develop their transferable, career-development skills, while providing a formal way of demonstrating these skills to potential employers. Graduating students must apply to join the program which requires students to complete their degree and submit an ePortfolio which demonstrates the accrual of personal skills and graduate attributes. In addition, students earn points for development of, and reflection on, their achievements in the four broad areas outlined above, they must accrue at least 100 points before submitting their application for the TAGA. Additional requirements, including an interview conducted by leaders in industry or University Alumni, are part of the ‘ready for work’ concept of the program. This initiative will be extended to other campuses after the initial pilot program has been completed at the end of 2010.

JCU Brisbane

James Cook University Brisbane (JCUB) is a purpose-built, inner city, higher educational facility focusing on teaching and learning primarily targeted at international students. A team of highly qualified and experienced academic and support personnel are continually improving international student’s access to diverse broad-based industry experience through workplace training, industry placements, internships, part-time work, and graduate employment. The Brisbane campus has developed an innovative and comprehensive suite of work placement programs (the majority of these programs however are not integrated with the curriculum and therefore are not WIL but are by definition – work experience) which ensure international students have an experiential pathway that progressively enhances their critical employability skills while providing access to real world industry experiences.

A key part of the WIL portfolio is the post-graduate capstone internship program. The Business & Industry - Professional Internship (LB5213) is an advanced elective subject in the MBA program and is normally taken in the last semester of study. This subject provides students with an opportunity to explore and utilise their theoretical knowledge along with their graduate skills and abilities in the context of a professional work environment. The student spends 20 hours per week at an organisation’s office/location working on projects relevant to their studies and skill level. While there are significant academic assignments to be completed, it is implied that students also demonstrate and provide positive measurable outcomes for the business during their 12 week tenure. The Internship has proven an invaluable opportunity for students to gain credible industry experience needed for future employment in a highly competitive global market.

The internship program is only available to high achieving students that have a GPA of 5.5 or higher as these students serve as JCU ambassadors to business and industry. In addition to the GPA prerequisite students must have completed at least two semesters of postgraduate study, have three positive references from campus lecturers, have no academic misconduct reports or sanctions, and demonstrate strong social and teamwork capabilities as observed by campus professional staff. As

internship students representing JCU in the marketplace only students who meet these criteria are considered.

The supervised student undertakes a subject-relevant/project-oriented internship with a suitable professional employer. Specific work assignments, duties and learning outcomes are determined in discussion with the internship sponsor, campus internship manager, the campus academic supervisor and the student in order to ensure that appropriate standards are maintained and are relevant to the student's study. The appointed campus academic supervisors are primarily responsible to liaise closely with the internship students and their business hosts in the management and supervision of this subject. The campus academic supervisor makes regular contact with host organisations and the student to track the internship progress and address any issues.

The program aims to recognise and build on the skills, capabilities and knowledge which students have acquired during their studies to develop postgraduate level professional awareness and practical skills in the context of the wider social, cultural and global environment of the workplace. It provides a learning situation that reflects the real world of business and integrates many of the business theories studied during their Masters degree. The assessment items are designed so that students are required to link theory to practice and critically analyse the congruence/discrepancy between such; this analysis is assessed according to normal postgraduate standards. In addition to receiving academic feedback (weighting 80%) students are given structured feedback from employers (20% weighting) preparing them for real world situations.

Students are placed in organisations that align with their studies. The placement organisation and related projects are congruent with study streams. Topics within subjects are used as benchmark indicators of this congruence. Projects are of a professional or semi-professional nature, appropriate to a near completed postgraduate level program. The internship program does not include task orientated manual labour. No interns are hosted by organisations that require a blue card or work with children under 18.

The internship student-application process is rigorous. If students meet the prerequisites they are required to submit a formal internship application, professional CV and letter of motivation outlining that they possess an adequate level of knowledge and skills to undertake the internship. Their application and references are examined and if considered viable are then jointly interviewed by an academic panel. If suitable, students are linked to suitable organisations based upon preferences and studies. JCU Brisbane finds and secures internship placements for its students. Students are then interviewed by potential host organisations and assessed as to suitability. If suitable, projects are developed and the student commences the internship. If a host organisation rejects the intern then alternate suitable organisations may be approached, ultimately though host organisations' decide. This is made clear to potential interns. Thus the intern's level of engagement, motivation and postgraduate attributes and professional skills are critical and the intern is required to demonstrate a high level of responsibility for the process.

JCU Singapore

The Singapore Campus of James Cook University (JCUS) is its foot print in Asia. University operations in Singapore are part of Singapore Government's long term plan of converting the island nation into an Education hub (Singapore Education, 2010). The Faculty of Law, Business and the Creative Arts offers the Bachelor of Business and MBA programs in Singapore. The courses offered in Singapore are identical to offerings at other campuses in terms of learning outcomes and graduate attributes, however the need to incorporate local requirements such as work legislations and international student needs complicates curriculum design. For instance, local legislations in Singapore prohibit international students from working paid or otherwise, thus, minimising opportunities to offer internships as part of curriculum. Local requirements in Singapore make it difficult to employ WIL pedagogy in development of subjects and courses and standardising curriculum design across campuses.

The Singapore Government seeks to host 150,000 international students in the tertiary education sector by year 2015. At present close to 86000 international students are studying in Singapore (Economic Development Board Singapore, 2010). This may lead to a rapid influx of international students entering the Singapore population and eventually the workforce leading to serious implications on the local job market. Thus, in order to protect employability of Singaporeans, the Government, through its Ministry of Manpower (MOM) has regulated international student employment options. The Ministry prohibits international students on a Student Pass to work either paid employment or voluntary work. Some specialist institutions may gain exemption from the above rule; however James Cook University is not included in the exempted institution list. JCU students aspiring for learning opportunities through work experience, internships or work placement must obtain a Training Work Pass or Training Employment Pass in addition to Student Pass in advance of being deputed to a work assignment (Ministry of Manpower, 2010). Since 75% of the Business student population at the Singapore Campus of James Cook University are international; these students are restricted by law from participating in higher order WIL options such as work placement or internships.

During the past decades, Singapore has seen the arrival of a growing number of international students from diverse cultural backgrounds and learning styles. These international students face several challenges including transition to university learning, acclimatising to a new living environment and forming fresh social bonds. These students are not always ready to participate in certain WIL activities such as internships and placements. Exposing them to WIL approaches of working in a foreign environment impedes learning as they are not ready to apply theory to practice and experience the world of work due to cultural differences. This calls for a “scaffolding-based” approach to introducing WIL options to enhance student readiness for higher order WIL options. The incremental model should begin with mentoring opportunities to build student confidence initially to gradually expose them to technical and conceptual subject content related to discipline of study and finally provide opportunities to application based learning to reinforce knowledge and authentic learning.

Nonetheless, being a vibrant economy Singapore offers several opportunities for industry engagement. It is possible to bring industry to the students by organising guest lectures by industry experts and to conduct student field trips to develop greater understandings of businesses. Other WIL options such as observation based research, real life case studies; business projects for small enterprises (such as ‘Students in Free Enterprise’ SIFE) and scenario based learning may eventually replace internships as higher order WIL activities.

Findings from Scoping Studies

Major Finding 1 – Paid placement (The invoice-scholarship model)

It was the general consensus of the JCU team that Victorian universities were more advanced and more competitively aware of the value of WIL than Queensland universities including JCU. One major manifestation of this difference was the uptake of co-op education in Victoria which provided year long paid WIL placements for students. Co-op placement is normally run in the third year of a four year bachelor program (the degree is extended due to the one year placement) and runs for approximately two semesters or 12 months. The majority of co-op students are domestic, the proportion was generally 90% domestic to 10% international. All universities in the study expressed degrees of difficulty in providing paid co-op (and unpaid placement) for international students. Most of the universities in Victoria have active co-op programs for business students in which on average 400 students a year were enrolled. The invoice-scholarship co-op model used by the majority of Victorian universities is a simplistic yet effective means of addressing how to pay students engaged in WIL placements. The invoice-scholarship model works as follows: the host company is invoiced \$28,000 - \$32,000 by the university; the company claims the payment as a tax deduction as a contribution to an educational institution, the university then retains a small administrative proportion, not generally exceeding 10% of the invoice value, and the remainder is paid to the student via the scholarship model. The invoice-scholarship model relieves the host company of employment

contracts, insurance coverage and other organisational factors as these inhibitors are addressed by the scholarship structure.

Queensland Business schools have not developed the same level of co-op or alternative paid placement WIL options for students when compared to Victoria, although there is an intention to move in this direction.

Major Finding 2 – Articulated vision, articulated target

As the team completed its tour of the nine universities it was recognised that strengths and innovative programs existed in all institutions in both states. However the Victoria University (VU) model was favoured by the JCU Team for its institutional wide approach. VU have set a target of 25% of WIL related assessment items (placement or non-placement mix) across a whole program. Not every subject had to have assessment tied into a workplace but the focus was on a holistic notion of work readiness, thereby allowing flexibility at the subject and discipline level. In addition this approach has allowed academics who are pro-WIL to include a larger proportion of WIL assessment components within their subjects while simultaneously relieving the pressure on other academics who believed WIL was not appropriate in their subjects and to refrain from integrating WIL into their subject at this time. This was made possible because the 25% WIL target was across a program and not at the subject level.

Major Finding 3 – Leadership

The success of the VU model was in a large part due to top-down university wide management support. In all universities with successful WIL programs – leadership and commitment from the Vice-Chancellor down was the key success indicator. Swinburne University's plan to appoint a Professor of Industry Learning re-emphasises the importance of leadership at the pedagogical and research level. One university at the request of the VC engaged external consultants to conduct university wide research and benchmarking to ascertain the cost of implementing WIL institutionally – the results from the consultants indicated that millions of dollars would be required to do so, however these consultations again reiterate the leadership required to implement WIL successfully.

General Findings

As the JCU Team members were drawn from the Faculty of Law, Business and the Creative Arts it was a stated aim of the project to explore both WIL and non-WIL innovations from the nine universities in these three disciplines. This broad approach informed the team's final recommendations for the Faculty which would serve the needs of each school with multi-campus operations.

Other models which provided varied approaches to non-WIL industry interactions included the University of Melbourne's (UM) Law School mentorship program; whereby Alumni act as a mentor and a UM coordinator matches students to mentors – students are not given options or involved in matching process. Mentors and students meet three to four times per year, and it is the student's responsibility to facilitate the meeting and maintain contact with the mentor. Mentor-student interactions can be as simple as coffee shop meetings or attending appropriate conferences with the mentor. Even though this mentoring program is not WIL, be in the strict definition of the term, it is none-the-less a successful and relevant program in the context of UM's Law School. Sustained engagement with Alumni is a crucial component in the mentoring program.

As in other successful WIL universities RMIT has a top-down policy approach to WIL which has resulted in WIL be incorporated into all its schools. RMIT has over 400 students out on paid co-op per annum. The undergraduate Communication Design program was an exemplar area for showcasing WIL activities particularly as RMIT has a Singaporean campus like JCU and is constrained by legal requirements to the provision of WIL. RMIT's 'in sourcing' of real client briefs for students to work on, is an approach to WIL that addresses both legal constraints limiting external placement while

simultaneously overcoming the difficulties of placing a large undergraduate cohort in external WIL experiences.

Swinburne University runs a Volunteer Work Program of two weeks duration with approximately 400 students out on co-op at any one time. No international students were involved in the co-op WIL program.

USQ's School of Psychology has purposefully redesigned its undergraduate psychology degree to incorporate increasing levels of WIL experiences as a student progresses through the degree. A scaffold approach to introducing WIL interactions from years one to three systematically increases the student's exposure to the industry, other industry professionals and then clients. The intensity of the student-client interaction was increased as students progressed through the degree – these client-student interactions were a mandatory component of the degree.

One university undertook a program wide WIL audit to determine its benchmark position. The 'hot spot mapping' of all of their programs revealed problems between espoused graduate attributes teaching and actual teaching, learning and assessment aligned realities. Part of the process was to map current WIL hot or cold spots. Finally a comprehensive model was developed to provide leadership with a costing model of rolling out WIL into every program.

Synthesis of Findings

Through the literature review and scoping studies it is the view of the JCU Project Team that setting a program-based WIL assessment-target is a realistic proposition. The literature review and the findings of the scoping study uncovered congruent issues that can be addressed through a program wide assessment-target approach. The VU model, while not without its own challenges, provides a guiding vision upon which pedagogy, policy and process can be articulated. The assessment-target approach allows for academics and discipline heads to scope the raft of WIL options presented in this paper for use within their subjects and programs. The benefit of the assessment-target approach coupled with 'hot-spot mapping' should foster a more institutional or faculty wide approach to WIL, advancing both policy and coordination.

The integration of WIL into the Faculty must be cognisant of scaffolding strategies that create work ready students. Many universities have clear pedagogical pathways for undergraduates to develop graduate attributes in structured subjects that increase in complexity and industry interaction over time. It is proposed that the Faculty of Law Business and the Creative Arts develop a series of generic capstone subjects that could encompass a range of WIL approaches; these could be either in the workplace, a virtual workplace or in a University based location. Recognition of the Faculty's legal and academic charter, need to be managed by a funded WIL coordinator and a team of academics to deal with specific projects and industry liaisons.

Recommendations made by the JCU Project Team to the Faculty are as follows:

- Recommendation 1** Provide clear academic leadership that is supported by academic policy and senior management
- Recommendation 2** Adopt a hybrid version of the Victoria University assessment-target model
- Recommendation 3** Conduct 'hot spot mapping' of all Faculty programs and benchmark current WIL experiences
- Recommendation 4** Consider all available WIL initiatives for use in an assessment-target model

Further to the recommendations a peripheral issue recognises that much of the current literature tends to explore aspects of international students' language proficiency, different learning styles and different writing values, which may affect their academic performance in higher education. However, there seems to be insufficient literature focusing on specific strategies to gain authentic learning

opportunities (Tranab, 2008). There is also need for a structured study to analyse needs of these students in a multinational education environment and to develop an informed approach to incorporating WIL in curriculum design. It should be noted that these multi-campus operations also create opportunities, such as student exchanges to gain international work experience.

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Benchmarking with a focus on Graduate Employability: Why, how and with what?

BEVERLEY OLIVER

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This paper is an exploration of benchmarking with a focus on graduate employability, an issue of increasing interest in the Australian higher education sector with the advent of the Tertiary Education Quality and Standards Agency (TEQSA). Benchmarking is not a new concept in higher education; however, evidence suggests it is largely conducted with a focus on the provision of services (eg ICT), using quantitative national indicators, and competitively (usually in a ranking system). A degree curriculum may be required to meet standards for accreditation, and this in itself is a form of benchmarking against a minimum standard. Beyond this process, it appears that benchmarking between higher education providers is rarely undertaken at the level of degree programs, and even less often through the lens of the employability of graduates. This paper centres on the activities currently underway within an Australian Learning and Teaching Council Fellowship: *Benchmarking partnerships for graduate employability* is designed to engage course leaders in collaborative benchmarking with a focus on graduate employability. It is built on a 360-degree evidence-based approach to capability development. The benchmarking partnerships are undertaken with mutual respect and within agreed confidentiality boundaries, within which course leaders responsible for similar degree programs agree to share reflection and evidence as a starting point for ongoing and mutually beneficial planning, implementing and monitoring of enhancements to effect enhanced graduate employability. The process described in this paper—centering on Goals, Inputs, Outcomes and Enhancements—is designed to enable course leaders and their teams to explore curriculum enhancements with trusted partners, and may go some way towards building collaborative networks as well as scholarly evidence-based reflection on the outcomes of teaching and learning. It also provides a mechanism for evidence of effectiveness of the optimum amount of work-integrated learning in the curriculum.

Keywords: graduate employability, collaborative benchmarking, capability development

Introduction: a new emphasis on standards and benchmarking in Australian Higher Education

Since the Australian Government's response to the Bradley Review of Higher Education (Bradley, Noonan, Nugent, & Scales, 2008), the terms 'standards' and 'benchmarking' have rapidly become more prevalent across the sector. In the United Kingdom, there has long been a focus on employability, often expressed as personal development planning (PDP) which grew out of recommendation 20 of the 1997 Dearing Review which directed higher education institutions to develop the 'means by which students can monitor, build and reflect upon their personal development' (Jackson, 2001). The Quality Assurance Agency (QAA), established in 1997, monitors how well universities safeguard standards. It also seeks to identify good practice and make recommendations for improvement, and publishes guidelines to help institutions develop effective systems to ensure students have high quality experiences. In particular, QAA has worked with the sector to develop "a set of nationally agreed reference points which give all institutions a shared starting point for setting, describing and assuring the quality and standards of their higher education courses" (Quality Assurance Agency, n.d.). These reference points include the Subject Benchmark Statements which define what can be expected of a graduate in terms of the abilities and skills needed to develop understanding or competence in the subject (some combine or make reference to professional standards required by external bodies) (Quality Assurance Agency, n.d.). This is an example of benchmarking against a minimum standard, as many Australian degrees are required to do for accreditation purposes.

The Australian government has recently announced a clearer and more direct focus on related issues: widening participation (equity) and clear minimum quality benchmarks (standards) will be funding-driven requirements of all higher education institutions by 2011 (Gillard, 2010). The government has called on universities across the sector to "to take stock, assess what needs improvement and to develop the plans and tools to lift the quality of teaching, lift the engagement of students and lift the expectations and performance of teachers and researchers" (Gillard, 2010). To drive this agenda, the Australian Universities Quality Agency will evolve into Tertiary Education Quality and Standards Agency (TEQSA), an independent body that will regulate university and non-university higher

education providers and monitor quality and set standards. In the interim (that is, in 2010), the Australian Learning and Teaching Council has the task of coordinating discipline communities' definitions of academic standards—that is, determining up to six high level core learning outcomes (threshold academic standards that describe core discipline knowledge and core discipline-specific skills) for degree programmes such as undergraduate Accounting (Australian Learning and Teaching Council, 2009). This type of 'standards matching' seems not dissimilar to the UK model of using Subject Benchmarking Statements.

Benchmarking in Australian higher education to date

The emphasis on standards naturally leads to benchmarking, described as “a process of articulating standards” (Bell, 1999). Benchmarking is a process that allows universities to assess their performance and improve their practice (Garlick & Pryor, 2004) in a cyclical process that involves feeding back information for further improvement (Henderson-Smart, Winning, Gerzina, King, & Hyde, 2006). It therefore involves both Quality Assurance (QA) and Quality Enhancement (QE) (Henderson-Smart et al., 2006). Until about ten years ago, Australian higher education institutions had been slow to take up benchmarking as a quality improvement process (Weeks, 2000) and efforts had mostly focussed on processes outside of the classroom because it was easier to determine process than quantify the outcomes of practice (Epper, 1999). This is particularly true in relation to teaching and learning: in 1995, Ramsden and colleagues recommended establishing benchmarking partnerships in order to identify and share best practice of recognising and rewarding good university teaching (Ramsden, Margetson, Martin, & Clarke, 1995) even though learning and teaching were (and still are) generally considered to be the most difficult area to benchmark in higher education because of difficulties in arriving at a consensus for the scope (Henderson-Smart et al., 2006) as well as a lack of quantitative measures by which an institution's performance in teaching and learning could be judged.

Since 1999, with the development of the Australian University Quality Agency (AUQA), universities have been required to determine what “quality” actually is and take responsibility for the quality of what they do (Henderson-Smart et al., 2006). In 2000, a benchmarking manual was produced by the Department of Education, Training and Youth Affairs (DETYA) for use in Australian universities (McKinnon, Walker, & Davis, 2000). Its focus was on the whole university, rather than individual courses and programs (Henderson-Smart et al., 2006). It was widely used but also subsequently criticised for its focus on quantitative and competitive nature (Garlick & Pryor, 2004). Benchmarking has been a particular focus of AUQA since its establishment: it has frequently been mentioned in AUQA audit reports, though more than two-thirds of the references are recommendations for improvement (Stella & Woodhouse, 2007). This highlights the developmental nature of benchmarking in Australian institutions to date: AUQA audit reports have frequently commented on the following as ‘needing improvement’ (that is, as Recommendations): the need to use a set of key teaching and learning indicators to internally benchmark; benchmark accreditation processes against those used by Australian universities; and benchmark criteria used for supervisor selection. International benchmarking has generally been found to be weak across the sector (Stella & Woodhouse, 2007).

This analysis of institutional AUQA reports suggests that there is more development needed if higher education providers are to use benchmarking to improve practice and outcomes. Garlick and Pryor (2004) suggested that collaborative rather than competitive benchmarking is more likely to be conducive to improving quality in higher education, even though initiatives such as the Teaching and Learning Performance Fund have subsequently pitched universities into fierce competition. The literature also suggests that benchmarking in higher education is most likely to be successful when:

- Academic staff have ownership of the benchmarking process (if it is seen as a silo activity or not rewarded and recognised, benchmarking is likely to be superficial and seen as “just another task” that academics must squeeze into their busy schedules) (Garlick & Pryor, 2004);
- It is kept relatively simple (Garlick & Pryor, 2004) and used to trigger for internal review and improvement, rather than external accountability (Henderson-Smart et al., 2006) or an indicator of competitiveness (Garlick & Pryor, 2004; Weeks, 2000);

- Universities seek partners beyond those institutions that most resemble themselves within a sector or discipline (Epper, 1999).

Graduate employability as a focus for benchmarking

Along with academic standards and accountability, graduate employability has become an increasing focus of Australian higher education and is an area in which benchmarking might well assist in improving evidence, outcomes, and practices. In the Australian Learning and Teaching Council (ALTC) Fellowship that is the focus of this paper, the term *graduate employability* means more than the attainment of employment. It draws on a widely accepted definition 'as a set of achievements — skills, understandings and personal attributes - that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy (Yorke, 2004). In this Fellowship, the focus is on developing graduates' 'capabilities', an umbrella term which implies integration, confidence and future performance (Stephenson, 1998). More specifically, it is focused on graduate achievement of the 'capabilities that count' for early professional success (Scott, 2005; Scott, Coates, & Anderson, 2008) so that new graduates 'hit the ground running rather than limping' (Knight & Yorke, 2004, 2006).

The Fellowship proposes a 360-degree evidence-based approach to capability development for graduate employability. To encourage engagement by teaching academics who have direct influence on the curriculum, it is deliberately focussed at the degree level, rather than department or institution. It is also a confidential process, well away from league tables and other competitive strategies. The process is intended as a 'trigger for internal review and improvement, rather than external accountability'. The central questions behind this framework are straightforward and focused directly on the preparation of graduates for employability: when we design degree curricula, we need to reflect on:

Goals: What are the capabilities that count for early professional success?

Inputs: Where are those capabilities developed and assessed within and beyond formal learning, including in work-integrated learning experiences?

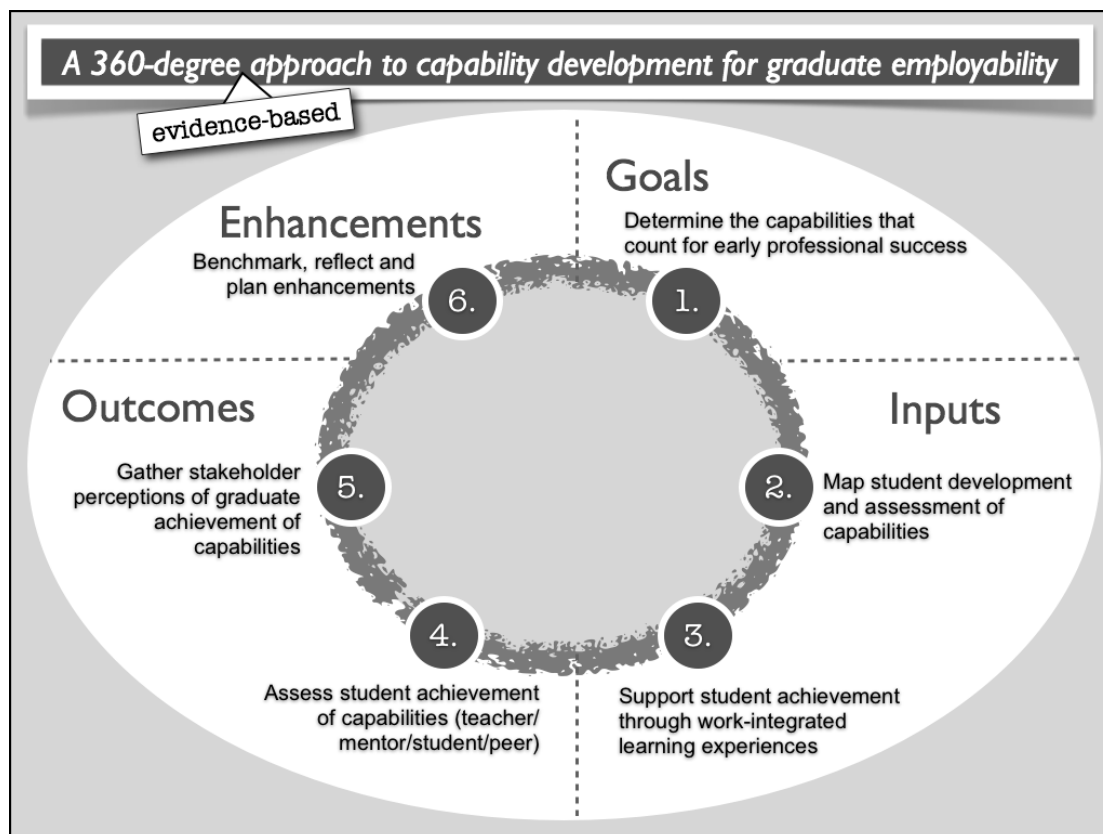
Outcomes: Where is the evidence of success? How does formal assessment indicate the standards of achievement of the capabilities? What are students' perceptions of their own and their peers' achievement of the capabilities? Beyond graduation, what are the perceptions of employers, teaching academics, and graduates) about demonstrated achievement of those capabilities in the early professional years?

Enhancements: How can we share our goals, inputs and outcomes with 'fellow travellers' who can assist us to determine how we might enhance those goals, inputs and outcomes? And how do the enhancements inform our reflections on the capabilities that count for early professional success?

These aspects of the ongoing quality improvement cycle are illustrated in Figure 1, overleaf.

This paper focuses particularly on the fourth aspect: Enhancement through collaborative benchmarking. The Fellowship programme seeks to engage course leaders responsible for degree quality in benchmarking partnerships that are undertaken with mutual respect and within agreed confidentiality boundaries. In this process (described in greater detail in the section that follows), course leaders develop a Benchmarking Evidence Portfolio, then share a summary of that Portfolio as a starting point for ongoing and mutually beneficial planning, implementing and monitoring of enhancements. This process will be trialled at a National Forum in November 2010 (see <http://tiny.cc/boliver>) with a range of degree programmes including undergraduate Accounting, Nursing, Hospitality and Public Relations. One of the aims of the Fellowship is to design and trial the process, then refine it based on participants' feedback, and report the findings in the literature.

Figure 1: Four aspects of a 360-degree evidence-based approach to capability development for graduate employability: Goals, Inputs, Outcomes, Enhancements



Benchmarking partnerships for graduate employability: the process

The benchmarking process has eight proposed steps, designed to draw on lessons from the literature, and based on a reflective approach to curriculum enhancement. The eight steps are designed for an efficient but comprehensive experience with due regard for confidentiality and institutional approval. The focal participants in the process are the benchmarking partners: each partnership consists of a course team represented by at least one course leader, ideally the person responsible for the quality and delivery and curriculum enhancement of the course. Benchmarking partners engage through these eight steps:

1. **Express interest** in participating by contacting the Fellowship team;
2. **Complete the Benchmarking Information Checklist** which includes preliminary details, contact information, and 'in principle' agreement from the appropriate Executive staff member(s) and signed confidentiality agreements from all;
3. **Engage their colleagues as appropriate**, especially head of school; advisory board or professional body if appropriate; the course team (full-time, part-time and casual staff); students, graduates and other appropriate stakeholders (this engagement with peers is likely to lead to more sustainable outcomes);
4. **Initiate the Graduate Employability Indicators** (highly recommended), online surveys designed to gather graduate, employer and teaching staff feedback on graduate attainment of key capabilities;
5. **Prepare the Benchmarking Evidence Portfolio** by reflecting with the course team and appropriate others, then decide which parts are to be shared with selected benchmarking partners);

6. **Confirm the benchmarking partners and event** (time, place and mode) and confirm Executive support for the evidence that will be shared with these partners;
7. **Engage with partners at the benchmarking event, sharing summary material from the Benchmarking Evidence Portfolio** and consider the reasons for current successes, and how to maintain them, as well as strategies to address weaknesses and enhance outcomes;
8. **Share the outcomes of the benchmarking event with internal and external stakeholders**, including Executive, and secure strategies, funding, timelines and indicators to provide evidence of future success; and maintain ‘critical friendships’ with the benchmarking partners; document the outcomes in preparation for the next benchmarking event.

To mirror the philosophical underpinning of this Fellowship (see Figure 1) and to emphasise the collaborative and reflective aspects of this style of benchmarking, the process includes consideration of a broad array of reflective (soft) evidence and quantitative (hard) evidence of the course inputs (eg where key capabilities are developed and assessed in the curriculum) as well as the course outcomes (evidence that graduates of this course have the ‘capabilities that count’). This array is detailed in the *Benchmarking Evidence Portfolio*, a summary of which is shown in the Appendix.

The role of the Fellowship team is to support participating course leaders to prepare their portfolios, to facilitate partnerships, and observe and draw on participant feedback to evaluate the process, and suggest refinements. Full results with recommendations will be reported in the Final Fellowship Report, and in the literature. This approach—which maps inputs such as work-integrated learning with outputs such as employer perceptions—is likely to produce some evidence of the effectiveness of incorporating work-integrated learning (WIL) into the curriculum: does more WIL lead directly to greater graduate employability? Is there a saturation point after which a greater emphasis on WIL may detract from graduate employability?

Conclusion

Benchmarking partnerships for graduate employability is an ALTC Fellowship programme designed to engage course leaders in collaborative benchmarking with a focus on graduate employability, an issue of national importance. It is built on a 360-degree evidence-based approach to capability development. The partnerships are designed as collaborative learning experiences, undertaken with mutual respect and within agreed confidentiality boundaries, within which course leaders responsible for similar degree programs agree to share reflection and evidence as a starting point for ongoing and mutually beneficial planning, implementing and monitoring of enhancements to effect enhanced graduate employability. The process described in this paper—centering on Goals, Inputs, Outcomes and Enhancements—is designed to enable course leaders and their teams to explore curriculum enhancements with trusted partners, and may go some way towards building collaborative networks as well as scholarly evidence-based reflection on the outcomes of teaching and learning. It also provides a mechanism for evidence of effectiveness the optimum amount of work-integrated learning in the curriculum. Federal government initiatives such as the Standards agenda and the launch of TEQSA are likely to mean more rather than less benchmarking at various levels. Done well, with energy and attention and an eye to enhancing graduate employability, benchmarking partnerships may be one way of reinvigorating curricula for a changing world.

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Appendix: Summary of the Benchmarking Evidence Portfolio

Benchmarking Evidence Portfolio: Summary

--Goals--

1. The key capabilities

What are the graduate attributes, graduate qualities, professional competencies or course learning outcomes that are the stated goals of this course? Comment on the degree to which the course is governed by these capabilities, and what you see as the strengths and weaknesses of your current approach.

--Inputs--

2. Evidence showing where, when and how the capabilities are assessed

Provide evidence showing where, when and how the capabilities are assessed in the course, particularly within work-integrated learning. Provide details of any systematic work-placements, simulations or authentic tasks (assessments which emulate professional tasks). Comment on what you see as the strengths and weaknesses of your current approach.

--Outcomes--

3. Student self- and peer assessment of capabilities

Some courses ask their students to self- and peer assess capabilities. If you have access to student self-assessment data, describe the outcomes here. Comment on what you see as the strengths and weaknesses of your current approach.

4. Evidence from quantitative indicators canvassing stakeholder perceptions

4.1 Students

- Commencing and total Headcount and EFSTL (domestic and international)
- First year retention rate
- Course annual retention rate
- Course Student Load Pass Rate
- Unit Pass Rates (domestic and international)

4.2 Graduates

Australian Graduate Survey: Course Experience Questionnaire (Good Teaching, Generic Skills, Overall Satisfaction); Graduate Destination Survey (Proportion of Respondents in Full-time and Part-time Employment and Undertaking Further Study)

Graduate Employability Indicators—Graduate Survey: Graduates of up to five years perceptions of the extent to which their experience during their degree contributed to their development of the capabilities, and their overall work-readiness (quantitative items); the importance of each capability to the early professional success of new graduates of this degree (quantitative items); and the best aspects of the degree in helping develop capabilities for employment, and suggestions for improvements (qualitative items).

4.3 Employers and industry

Graduate Employability Indicators—Employer Survey: Employers' perceptions of the extent to which new graduates (from any university) demonstrate each of the capabilities, and their overall work-readiness (quantitative items); the importance of each capability to the early professional success of new graduates of this degree (quantitative items); and what skills, attributes and personal qualities are most useful for new graduates in this field, and which can be prioritized for improvement (qualitative items).

4.4 Course teaching team

perceptions of the extent to which new graduates demonstrate each of the capabilities, and their overall work-readiness (quantitative items); the importance of each capability to the employment success of new graduates of this degree (quantitative items); and their confidence in teaching and assessing the

capabilities (quantitative items); their role in assisting students to develop the capabilities, and the main incentives and disincentives for doing so (qualitative items).

Comment on what you see as the strengths and weaknesses based on the evidence in this section.

5. Overview reflective questions

Overall, what do you see as the strengths, weaknesses, threats and opportunities for graduate employability of this course? What issues do you hope to collaborate on with your benchmarking partner(s)?

Academic Professional development for quality experimental placements: Using National collaborative approached for creating online respository tasks

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Background: A commitment to quality teaching and student learning outcomes is an increasing expectation in Australian higher education institutions. In preparing for experiential placements, partnership approaches among discipline-specific academic, practitioner and professional communities are important. A key challenge is the development of academics working within professional preparatory programs and ensuring that they are continuously updated in discipline-specific aspects and also up-skilled in curriculum planning, learning and assessment approaches. Research has highlighted the ineffectiveness of professional development models involving one-off events. Alternatively, collaborative workshop activities focused on practical materials relevant to student learning and conducted over an extended timeframe and within a community of practice can promote long-term change in learning and assessment strategies.

Aim: Within an Australian Learning and Teaching Council (ALTC) funded project, a key aim was to establish national collaborative professional development workshops for academics and interested others focused on devising quality learning and assessment tasks for pharmacy experiential placements and to gauge effectiveness.

Method: During a fifteen-month period, a series of workshops was established within annual professional conferences. Academics and professional/registration board representatives worked together on various topics to develop learning and assessment tasks using an online template. After the workshops, follow-up occurred through assigned group leaders liaising with other group members to finalise the tasks. A quality assurance process was used by the project team prior to publication of tasks.

Evaluation of the collaborative professional learning process was undertaken through written surveys involving 5 point Likert scale survey items and free response questions. Semi-structured interviews were conducted by an external interviewer, with manual collation of results and thematic analysis occurring.

Results: Written survey responses from a total of 34 respondents after two conference workshop sessions indicated positive benefits, with 100% of participants expressing satisfaction about the collaborative workshop process. Additionally 87% intended sharing workshop information with colleagues and 100% intended to disseminate information to other networks. External evaluator interviews also indicated the value of the collaborative learning process involved, with some longer term changes in curriculum planning and impacts on wider networks also evident.

Conclusion: Positive results from national collaborative workshops highlight the effectiveness of cross-institutional and professional and practitioner partnerships for experiential placement

curriculum planning. Limited data available at this time indicate that with the provision of continued support and an extended timeframe for further development of the collaborative workshops and website, a community of practice may be nurtured.

Keywords: community of practice, experiential placement, professional development

Background

Entry to the health professions is regulated by discipline-specific academic and program accreditation standards, entry-level competency standards and university graduate attributes. This diversity of standards and curriculum frameworks is focused on achieving higher education learning outcomes and ensuring quality preparation for entry to the professions. Health educators within universities are increasingly establishing collaborative partnerships with accreditation agencies, professional associations and industry groups as an essential part of these processes (ALTC, 2010).

Within this accountability context, there is an increasing focus on academics working within professional preparatory programs being continually updated in their discipline-specific skills and knowledge. An additional focus is ensuring that there are opportunities for academics to build the various capabilities associated with providing a quality educational program (Cox, 2001).

Educational skill-building has often occurred through one-off attendance by participants at specific events. Based on behaviourist learning theory and individual cognition models, the focus at one-off events is on knowledge transmission with few opportunities being provided for individual participants to individually consider the new ideas and making links to their own institutional situation (Spillane, 2002). While information transmission is useful, increasingly these one-off events have been criticised as ineffective in terms of changing educational practices due to the lack of opportunity to explore new ideas and develop in-depth understanding. Research highlights that effective professional learning occurs within situated and 'real life' contexts, and through collegial work in ongoing networks, coaching and mentoring (Kenway et al., 1999; Rhodes & Houghton-Hill, 2000; Joyce & Showers, 2002).

These collaborative network situations operating over longer timeframes may become communities of practice. Communities of practice have been defined as: 'groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly' (Wenger, p. 1, 2006). Wenger, McDermott & Snyder (2002) define three structural elements of a community of practice as the domain, practice and community. The *domain* is the shared focus activities, the 'concern, set of problems or passion about a topic', while *practice* relates to the body of shared knowledge and common values, with community members seeking to 'deepen their knowledge and expertise' on a topic by learning from each other. The third structural element of *community* is about interpersonal relationships, the sense of identity and cohesion involved. Therefore, communities of practice models highlight professional learning occurring within groups which work together over an extended timeframe and develop common values. Joint activities occur in face-to-face or in online contexts and the newcomers are gradually inducted into the situation while also being encouraged to introduce 'fresh' ideas and highlight innovative practices (Lave & Wenger, 1991; Lave & Wenger, 1998; Owen, 2004). Bolam et al.'s (2005) work raises issues about communities of practice and professional learning teams in terms of levels of maturity of groups from 'starter' (in which individuals were not strongly committed to the group), to 'developer' and subsequently 'mature', with the latter nurturing a strong sense of identity and group learning.

Various community of practice models for professional development and skill-building of academics have been researched. These include establishing regular face-to-face sessions for discipline-specific and issue-focused cross-disciplinary groups within particular institutions (Cox, 2001; Wade, 2007) and

also facilitating online networked communities of practice across various disciplines (Timberlake, 2008).

In the health professions, research on communities of practice and their impacts has been more limited than for other professions (Bentley et al., 2010; Grimshaw et al., 2009). Le May's (2008) work on communities of practice using examples from the United Kingdom and Canada outlined weekly meeting session times which were used for generation of ideas, problem solving and analysis of current work practices. Benefits of collaborative professional development and improved patient care were highlighted. Similarly, Parboosingh's research (2002) among physicians which involved ongoing shared professional learning sessions within a community of practice indicated benefits of increasing access to rich data, experiences and mentors.

These health profession examples regarding professional development impacts provide information about an under-researched area. Some models for evaluating professional development effectiveness are noteworthy. For example, Guskey's (2002; 2006) work outlines five levels of professional development effectiveness. These levels relate to participant reaction; changing personal beliefs and improving skills; organisational context issues; participant use of new knowledge and skills, and the impact on student learning.

An Australian Learning and Teaching Council (ALTC) funded project aimed to improve pharmacy experiential learning through establishing collaborative workshops and follow-up activities. The workshops focused on developing quality learning and assessment tasks using a curriculum planning template and online repository website, with these aspects being outlined in a forthcoming paper. The current paper reports on written feedback obtained following two collaborative workshops and also external evaluator interview data originating from the online repository tasks. Findings about the impact on pharmacy educators' professional learning and subsequent curriculum planning are also outlined. Potential for wider application across other professional degree programs is highlighted.

Method

Two collaborative curriculum planning workshops for academics and professional/registration board representatives and supervising preceptors were offered within an existing annual national pharmacy education forum and conference program. Most pharmacy schools were represented at the workshops. The focus was the collaborative preparation of quality learning and assessment tasks using a curriculum planning template. Dissemination and follow-up occurred through the specially-designed online repository website.

A list of potential topics relevant to experiential placements was forwarded to workshop registrants prior to the education forum events and attendees selected a topic and brought along related materials from their own institutions. Topics covered varied with each workshop but included aspects such as patient case studies, health information, introduction to hospital pharmacy, patient counselling in complex situations, scaffolding for placement, portfolios, teaching-research nexus, and pre-placement primary health. Each topic group was supported by a group leader, with leaders and other participants sharing materials from their own universities and then working collaboratively in groups of three or four to create a new task using the online template. At the completion of each workshop, a written survey was distributed to attendees to gauge the effectiveness of the sessions. The survey included 5 point Likert scale items and free response questions, with questions relating to views about the workshop, professional learning, and intentions about sharing information with networks and with colleagues.

After the workshops, over a 3-4 month timeframe, follow-up occurred with assigned group members then finalising the tasks with their teams, using mainly online or phone communication. A quality assurance process was used by the project team prior to publication of tasks. Attendees were then

provided with updated information about task publication, with access to the material given to registered website users.

Throughout the project, the external evaluator gathered data by conducting 15-20 minute semi-structured interviews in person or by phone. Semi-structured interviews were used to encourage a conversational approach. Questions were asked about the value of the collaborative workshop events; influences on beliefs and practices and intentions to share materials with colleagues and networks. Using purposive sampling to increase the likelihood of more expansive and in-depth responses, fifteen project contributors who had previously interacted with aspects of the project were selected for interview prior to the workshops. Most interviewees had either attended a previous conference education forum, were part of the project team/reference group or had participated in other state and territory consultations in various project aspects.

Results

Preliminary results about the effectiveness of various collaborative professional development aspects are provided as follows:

- Written feedback from workshops
- External evaluator interviews.

Written feedback from workshops

Attendees at workshop events provided written feedback in terms of the workshop processes and intention to share ideas.

Written feedback was obtained from 34 participants at the two workshops. One hundred percent of respondents expressed satisfaction about the collaborative workshop process, 87% intended sharing workshop information with colleagues (and 13% were neutral) and 100% intended to disseminate information to other networks.

There was a range of comments reflecting positive attitudes to the collaborative workshops, with examples being: 'Learn a lot from other participants in the group', 'lots of ideas and sharing of experiences' and 'informative, enjoyable, well-coordinated activities'. Other comments indicated 'usefulness of links to attributes and competencies', 'informative, enjoyable, well-coordinated activities' and 'collaboration, structured approach to task/activity development'.

External Evaluator Interviews

Regarding the *workshop events and collaborative work* which occurred at these education forums, there were highly positive responses made by all interviewees about the degree of sophistication which was evident within the project materials in terms of competencies; the usefulness of linking tasks to competencies within the materials collaboratively developed for publication on the website; collaborative work and sharing ideas around a task; networking value; considering pedagogical reasons for activities that students undertake.

The following comments capture the ideas expressed in general by various interviewees about the value of the conference education forum events:

Today: Great! The networking; getting input, swapping notes; extremely useful while we were sitting down working together. You get really good input.

Really positive. Thinking about the pedagogical reason we're doing things; activities we can take home and use; where are the students going; what do we want them to achieve, as we're doing this morning. Where we want the students to go, rather than focusing on the tasks.

The external evaluator data also showed all participants reporting positively about *influences on beliefs and practice* from the project. Key themes related to the value of collaborative work in general, including using particular website activities in student learning activities and reworking assessment grids and links to competencies. Example comments about the overall influence of the project on practices are:

Collaboration. New ways of looking at my teaching but ideas not completely new. It's validating my knowledge. I'm learning that I've already thought about things that others may not have. It's validating my ideas. It's OK to have a multi-angle approach; that my approach is not too complex – and that the concept of competencies we are using is not black and white.

I'm becoming more sophisticated as an assessor - in the use of marking grids in both teaching and placements. The competencies have focused my thinking and teaching – I now use them in First Year.

(regarding reflection): This concept was introduced by the Project. We haven't taught the skill of Reflection before in Pharmacy – just one lecture in First Year this year is planned to at least introduce the concept. Fourth years weren't successful at a Reflection exercise – one of the workshop topics raised it. We assessed it without teaching how to do it, which was unfair. Scaffolding is needed. Now in the 1st year practicals we'll have a team of four students who will gather information and enact an OTC (over the counter) scenario, each with a role, one of these being a peer assessor.

With respect to the *impact of the project on others* such as colleagues and professional bodies, there were varying degrees to which this had occurred although most indicated that there were ideas which they would be taking back to colleagues. Example comments are:

Yes, hope to move forward and share good/bad with colleagues; learn from each year's results so there is a graded improvement/progression for student experiences and their work.

I've shifted across to using competencies in both the placement workbook and 1st year portfolio to explain why we do things. The teaching team has also gone back to see where the skills development is, and now have a progression going through the four years. The concepts of scaffolding and skills development have come to the fore; also that the uni is a safe environment in which to test skills – this is linked to scaffolding. I've introduced a new style of testing in exams, based on prac(tical) work. The formative tools used in the portfolio are also used in exams, so that the students are used to what is expected.

A general summary comment from an individual interviewee to the external evaluator about the value of the project and collegial work is as follows:

Here, we meet bottom-up and top-down aspects – this has been a great journey in my development as a teacher; we should have a good justification for that; here meeting colleagues helps us make a cogent argument to our students and preceptors; the competencies tie all this together. When I began years ago, the competencies were impenetrable; this process has helped me realize they are the foundation on which our course is built. Our teaching and clinical experience is no different. To form a community of scholars around this has been very enriching.

Discussion

Pharmacy professional learning opportunities were created through a national project. Various processes were underway including national collaborative workshops and follow-up processes to create learning and assessment tasks using a curriculum planning template and dissemination of

materials within a website. Professional /registration and supervising preceptors were involved although the predominant group was academics.

Considering Guskey's (2002; 2006) evaluation model of levels of professional development effectiveness, workshop event surveys and external evaluator interviews indicated highly positive respondent reactions to materials and events in terms of usefulness and professional learning. Many respondents also indicated re-thinking of their ideas and learning and assessment tasks and the concept of competencies and students progressively developing skills and knowledge, while also indicating ongoing collegial sharing occurring within their own institutions and networks. Furthermore, reflecting Guskey's professional development effectiveness model at a deeper level, there were early indications of individuals' making actual changes in their curriculum planning practices as a result of the ongoing collaborative processes.

In terms of other previously-outlined research highlighting effective professional development occurring within social contexts focused on relevant activities occurring over an extended timeline and building a sense of identity, there were indications from some participants that the development of a community of practice was underway. This was particularly evident for those involved in a range of project aspects such as project team/reference group members, state and territory consultation participants and involvement in several collaborative workshops creating learning and assessment tasks for the website. Within this group of participants, some were highlighting rethinking of views and making actual changes in curriculum planning practices. In relation to previously-outlined professional development models (Guskey, 2002, 2006; Bolam et al., 2005) and a sense of identity and learning occurring over an extended timeframe, development of a collective group involving pharmacy academics and professional/registration representatives learning together is still in the 'starter' stages.

However, it would seem that during the project duration, due to the collegial opportunities and focus on joint activities involving pharmacy experiential placements curriculum planning of website tasks, some sense of identity and a community of practice is beginning to emerge.

Limitations of the study include the small sample size and the high degree of inference in the conclusion. There is also a lack of follow-up of participants to explore their longer-term learning from the workshop and the impact on student learning. Further interviews with academics regarding changes in curriculum practices and impacts are planned and this data will enable more in-depth analysis regarding the effectiveness of the interventions.

Conclusion

Further website expansion is planned and development of additional tasks through future collaborative workshops and other ongoing work within professional bodies may enable a community of practice to become established at a more mature level within the national pharmacy education context, particularly in regard to experiential placements. However ongoing work to nurture a community of practice is really dependent on further funding and support being available to continue the maintenance and expansion of the website, organise the collaborative workshop sessions and promote the value of the collegial curriculum planning work.

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Educating Indigenous People for Employment in Australian Mining: The Rio Tinto Alcan Initiative at Nhulunbuy

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The persistent labour market disadvantages of Indigenous people in remote regions of Australia attracts resurgence of interest in their employment in the minerals industry. This paper describes and presents achievements of an educational-vocational programme that is conducted at the remote centre of Nhulunbuy in the Northern Territory (NT) of Australia for Indigenous Yolngu people. The initiative is conducted by Rio Tinto Alcan personnel in association with the Charles Darwin University, the NT Ministry of Education, and relevant training/accreditation bodies. Presented material identifies a diversity of issues for initiatives to improve Indigenous employment, and challenges the prevailing assumption Indigenous people will pursue their socio economic independence through employment in the minerals industry. Concluding comments advance the notion pathways to short term and long term benefits are linked to greater understanding and appreciation of the expectations of all stakeholders.

Keywords: Education, Employment, Indigenous, Yolngu, Australian Mining

Introduction

Relative to other Australians, Indigenous people experience substantial labour market disadvantage. Indeed, a great deal of literature has reported the high rates of Indigenous mainstream unemployment (Cutcliffe, 2006; Daly, 1995; Gray & Hunter, 2002) as well as the extent of their dependence on welfare payments (Daly & Smith, 1998; Gray & Hunter, 2005). To redress the low level of Indigenous labour force participation the Australian Government, in 1977, introduced the Community Development Employment Projects (CDEP) scheme as an alternative to unemployment benefits (Altman & Gray, 2005; Hunter, Kinfu & Taylor, 2003). Installation of the CDEP scheme, which required Indigenous participants to perform work for unemployment benefits (Altman, Gray & Levitus, 2005; Arthur, 2002), was a response to concerns by the Australian Government, and prominent Indigenous leaders that unemployment benefits were being obtained without doing any work. Following a number of assessments of the CDEP scheme, that gave equivocal findings, in 2009 the Australian Government announced the CDEP scheme would be structured into a work readiness training service (Altman & Jordan, 2009; *Participant Fact Sheet*, 2009).

In remote regions of Australia there are poor job prospects for Indigenous people. Often there are insufficient mainstream work opportunities, while the few available job positions are likely to be filled by better trained and educated non Indigenous people (Altman, et al., 2005; Gray & Hunter, 2002; Trudgen, 2000). A concern for the Indigenous underprivileged sector, particularly in remote and rural regions of Australia, has onset resurgence in interest in employment of Australian Aboriginals in the mining sector. Although Indigenous employment rates in Australian mining are relatively low (Brereton & Parmenter, 2005; Harvey & Brereton, 2008) the mining sector remains "... one of the few available avenues to deliver economic and other improvements to Indigenous people living in those areas." (Barker, 2006: i).

A prevailing assumption that remote mineral operations will lead to an increased Indigenous participation in the mining workforce is driven more by hyperbole and less by evidence. In spite of the commitment through the policies of the Australian Government and peak mining bodies to facilitate employment opportunities to Indigenous people their representation in cadres at refineries and mine sites is unfavourable (Brereton & Parmenter, 2008; Taylor, 2004). Concerns for the Indigenous underprivileged sector (particularly in remote regions), a shortage of skilled mineworkers outside the area of the mining activity, an impetus to obtain employees in boom periods, and that in the remote areas a substantial proportion of the population is Indigenous people, has resulted in Australian mining

companies taking a more proactive approach to Indigenous community engagement (Barker, 2006; Brereton & Parmenter, 2008; Harvey & Brereton, 2005). Although there are perceived benefits from partnerships between mining companies and Indigenous communities contemporary mineworkers are required to possess high levels of technical competence (Colley, 2005; Gray & Hunter, 2005), qualities that are likely to be held by very few Australian Aboriginals in remote communities. And while the core business of the mining industry is not education the reported low levels of English literacy and numeracy skills of Indigenous school children and adults, and particularly in the NT (Hughes, 2008; Kral, 2009; Tripcony, 2000), compels mining companies to promote vocational training programmes.

This paper presents, in six parts, the description, results and consequences of a work readiness programme that is conducted for Indigenous people. Following the introduction (the first part) is a description of the programme to outline the foundation and refinements to the current variant. In the third part of this paper is given the site, participants and an overview of how the education-vocation programme is undertaken. The fourth section provides results as Tables and electronic images of some Indigenous graduates in their workplace. A fifth part of the paper integrates the outcomes of the work readiness programme with the relevant literature. The concluding section addresses some of the observations with short and long term consequences.

The ALERT Work Readiness Programme

During 2006 Alcan personnel prepared a document (*A Response*, 2007) to gain support from a wide spectrum of stakeholders for a new Indigenous training and employment programme. This ambitious work was labelled the Alcan Learning Education and Regional Training (ALERT) programme. In early 2009 when Rio Tinto became the principal shareholder of the mining operations in Nhulunbuy Alcan was replaced with Arnhem. This document was designed to cater for the interests of the Traditional Owners, Indigenous Organisations, the three levels of Australian Government, the education sector, business and employer groups, relevant industry organisations and peak bodies of the mining sector. As the document had to reflect the shared interests of a plethora of local Indigenous Yolngu people and important external (often non Indigenous) parties the content was wide ranging.

At the core of the ALERT programme was a series of seven stages. The first stage, *Application*, was when the potential candidate completed an application form to provide relevant personal information (i.e., gender, age, clan, shoe size) and the names of two non clan referees. In the second stage of about one hour, the applicant completed a *Discovery Session*, which had been developed (Pearson & Daff, 2008) to assess the aptitude of the candidate without prejudicing them because of their deficits in English literacy or numeracy skills. The third stage of the ALERT programme was the *Selection* of 15 candidates (the number was determined by executive management) from the total presented applicants following some rudimentary testing of their job relevant skills and educational abilities. An *Induction* period of at least one week was the fourth stage. In this stage personal hygiene, issue of uniform, advice of the bus collection details, signing of a family contract and a host of other matters concerning the candidate and the family was addressed. The work readiness vocational part of ALERT was *Work Prep* (stage five), *Work Ready* (stage six), and *Work Starts* (stage seven). *Work Prep* was for four days a week for three months, *Work Ready* was for four days a week for four months, and *Work Starts* was for five days a week for up to 29 months. The purpose of *Work Prep* was to build the ALERT trainee's confidence to start training, *Work Ready* was to practice and reinforce work/learning behaviours in specific job contexts, and *Work Starts* was the commencement of employment as on the job training. Although trainees are paid once selected the rate of pay in *Work Starts* depended on the job position.

The seven stages of the ALERT programme had two main objectives. First, to choose the 15 candidates that were assessed as the most suitable from the total number that applied. Second, to provide the Indigenous Yolngu ALERT trainees with practical work skills that would enable them to be employed in community mainstream jobs, preferably at the Nhulunbuy refinery or the mine site. Embedded within the second stage was the focus to a) instil in the trainees robust work habits

including regular daily attendance, b) provide a learning environment in which candidates could develop their English literacy skills and numeracy competencies, c) present the programme to generate enthusiasm and self esteem levels in the trainees, and d) teach them practical and valued work skills. The vision of executive management was there would be two ALERT programmes each year.

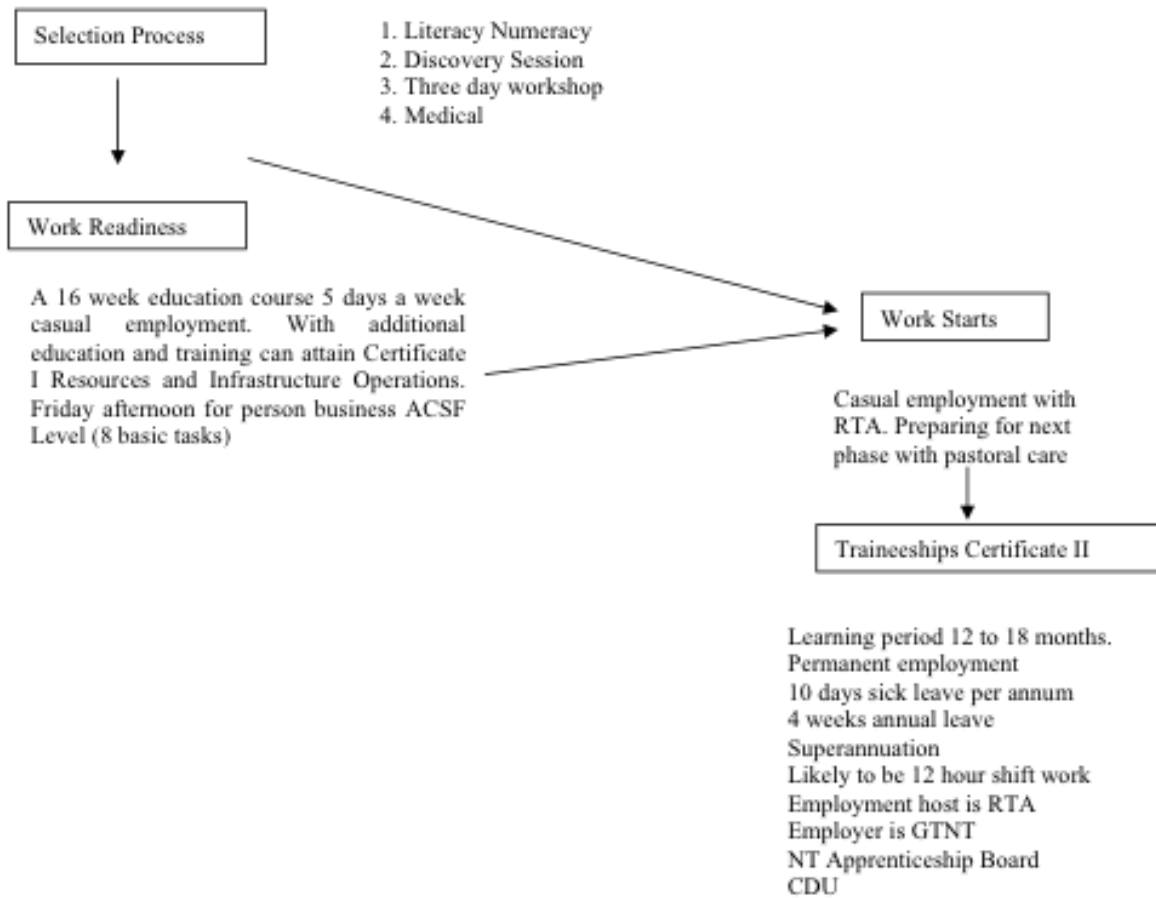
Before the commencement of the third ALERT education-vocation initiative it became apparent the programme would profit by some refinements. From the first two ALERT programmes about one third of the candidates had withdrawn, about one third had returned to their communities to work mainly in CDEP projects, and less than one third had graduated and become employed in Rio Tinto Alcan positions at the Nhulunbuy refinery or mine site (Pearson & Daff, 2009). Although the employment of Yolngu people in mainstream community jobs was a valued result, and while the number of graduates who chose to work for Rio Tinto was a welcome outcome, the extent of investment by the ALERT programme deliverers for the high level of leakage of candidates led to a conclusion a better strategy was warranted.

There were three prominent changes to the inaugural ALERT programme. First, the programme was restructured into the two streams of *Work Readiness* and *Work Starts*. Nominally, applicants who successfully completed the selection process and had a formal education of Year 10 were employed in *Work Starts*, while those who completed the selection process, but their formal education was less than Year 10 and greater than early level primary school were invited to enter the *Work Readiness* programme. The *Work Readiness* component was for 16 weeks, for five days a week when the trainees received education and training for paid casual work. On Friday afternoon trainees were assisted with personal business matters (e.g., banking). Second, a more stringent selection process was introduced. This screening process employed national literacy and numeracy tests, the completion of a *Discovery Session*, a three day residential workshop, input from two non clan Referees, and a thorough medical examination. An outline of these two changes is shown as Figure I. Third, the selection process stage was extended to enable the assessors more time to evaluate the applicants. While the 15 Yolngu applicants were being assembled for the *Work Readiness* element they were given closely supervised paid casual work (e.g., women might be doing administrative work, men could be aiding a supervisor). As the intention was to have four intakes a year, and with some applicants moving directly into work, it was expected a greater number of Yolngu people could be employed in mainstream jobs than the initial versions of the ALERT programme.

The refined ALERT programme was conducted for 2009, but an unfavourable level of candidate leakage persisted. From a total of 126 Indigenous applicants 42 were chosen when they completed a *Discovery Session*, undertook literacy and numeracy testing, their Referees were interviewed and a successful medical examination was undertaken. By the close of 2009 there were 22 departures (withdrew, suspended, custodial removal). Of the remainder two left to work in the community and 18 chose to work for Rio Tinto Alcan, but nine of them later left their work position at the refinery. In effect, nine of the 42 (21.4%) remained in employment with the vocation – education provider by the close of 2009.

Unexpected highlights of 2009 were an intensity of applications and the need to further refine the selection process. In 2009, ALERT won the NT Ministry of Education award for the most innovative education programme, and public exposure of this achievement led to a ‘flood’ of applicants from across northern Australia. To address this ‘spike’ in potential ALERT participants the screening processes were made more restrictive. For the first intake of 2010 Indigenous trainees applicants were required to provide documentation to demonstrate educational – vocational competencies (e.g., formal education certificates, employer references, driver license, other work relevant accomplishments). A short list of 26 applicants was then invited to travel to Nhulunbuy and attend a one week residential assessment workshop, At the end of the week 12 people were offered a contract to enter a 14 week *Work Readiness* scheme and four others were invited to commence in *Work Starts*.

Figure 1. The Rio Tinto Alcan ALERT Education-Vocation Scheme



Notes:

- a. Rio Tinto Alcan (RTA) Has weekly feedback from the Supervisor so if required candidates can be given additional training/education.
- b. Group Training Northern Territory (GTNT) Responsibility for employer/employee IR.
- c. Northern Territory (NT) Apprenticeship board gives representative visits to the trainee half yearly, which is a requirement of NT government funding.
- d. CDU The Charles Darwin University is the registered training organisation and conducts the trainee final assessment. Trainees enrolled in a Certificate II programme of 12 units with 4 mandatory.

The ALERT trainees have opportunity to complete university certificates and obtain full time employment in the minerals industry. With application a trainee in *Work Readiness* can complete a Certificate 1 in Resources and Infrastructure Operations, a qualification that is awarded by the Charles Darwin University. Participants of *Work Starts* can undertake a Group Training NT (GTNT) Certificate 2 in a variety of streams (e.g., Engineering, Administration, Metaliferous Mining Operations). Full time employment is available to graduates at the minesite or the refinery. The outcomes of the ALERT programme since inception is outlined in the Results section, but first some delineation of the ALERT site, participants and how the programme is administered is warranted.

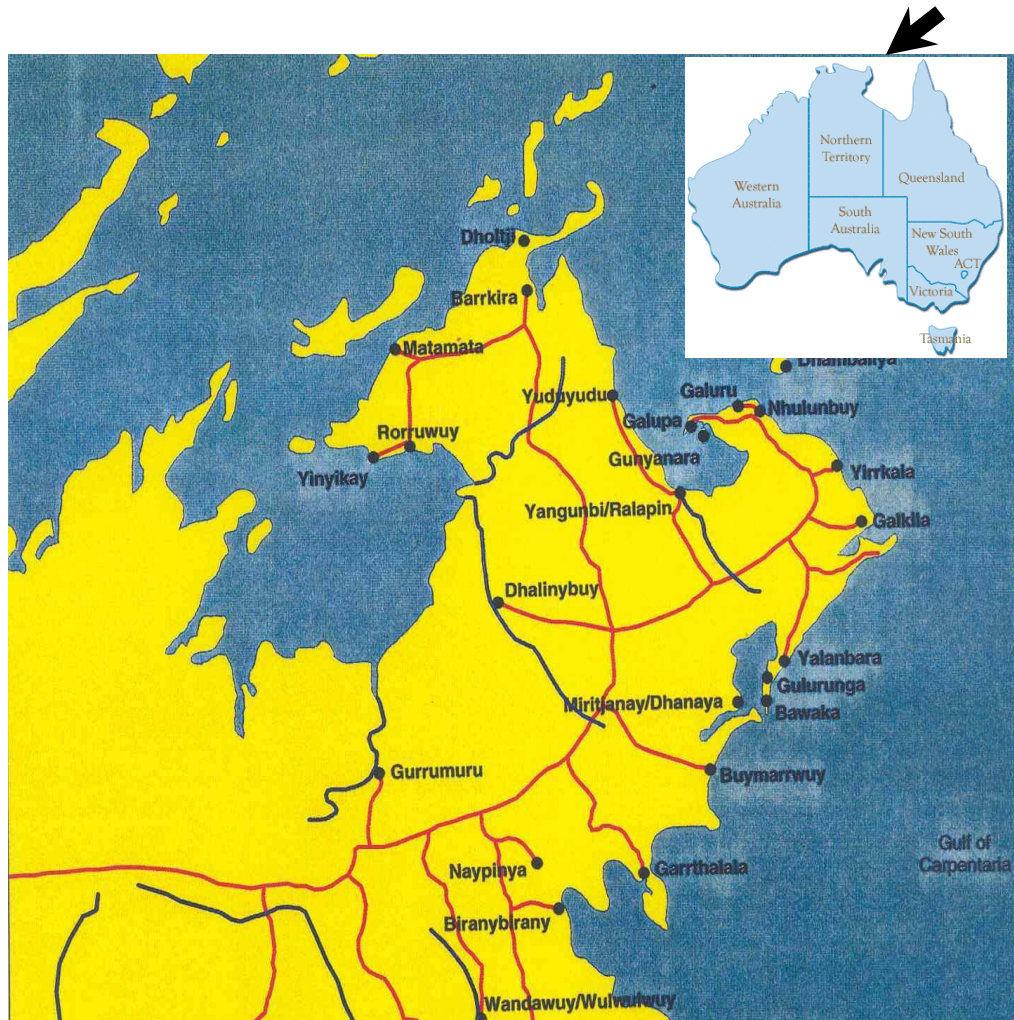
Methodology

Site

The ALERT programme is delivered in dedicated education facilities at Nhulunbuy as well as at the refinery and minesite. Nhulunbuy is on the remote Gove Peninsula of the NT of Australia, as shown in Figure 2. The town of Nhulunbuy has a population of some 4000 residents, many of whom are

employed by Rio Tinto Alcan, which operates the mine and the refinery. This refinery, one of the largest in the southern hemisphere, has a capacity of 4.0 million tonnes of alumina per annum. Although relatively isolated from other large centres Nhulunbuy has all the infrastructure of contemporary Australian towns (e.g., hospital, shopping centre, court, airport, swimming pool, hotels).

Figure 2: The Region of Influence of the ALERT Programme



The education component of the ALERT programme is mainly conducted in buildings that were extensively upgraded in 2006 and 2007 by the mining operator. To the south west of the town centre, and on the periphery of the Nhulunbuy town centre, is the ALERT premises. Inside a security fence are two large teaching buildings, a large building that houses industrial equipment, two ablution blocks, a swimming pool and a parkland area where the graduation ceremonies are conducted. These facilities were provided by Alcan, which was the then current mining operator. In addition, other off the job teaching and instruction is undertaken at the Nhulunbuy Technical Education School where the course content is delivered by staff from the Charles Darwin University. On the job training is given at the refinery or the minesite by Rio Tinto Alcan supervisors, some of whom are dedicated ALERT staff. At different stages of the *Work Readiness* programme specialist contracted trainers/educators deliver courses (e.g., first aid, working at height) at the main ALERT teaching rooms.

Participants

The ALERT programme is reserved for Indigenous people. Initially, the programme was preserved for the Indigenous Yolngu people of the Gove Peninsula within a 50 km radius of the refinery. Indeed, the participants of the first two programmes and a majority of those in the third programme were from Yirrkala, Galuru, Galupa and Gunyanara. Yirrkala, which is 25 km south east of Nhulunbuy, has a population of about 800 people mostly Indigenous; Galuru no longer exists; Galupa is a handful of houses with about 25 people, adjacent to the refinery, which is 15km to the west of Nhulunbuy; while Gunyanara has about 20 houses and about 150 people. Disturbingly, few of the early ALERT participants displayed an interest to be employed in full time industrial type jobs.

A lack of suitable local regional Indigenous applicants encouraged searching of more distant centres. For example, the outstation of Dhalinybuy, which has 13 houses, a one room school, a light aircraft landing strip, and a population of about 100 people was visited. This recruitment drive by a team of ALERT personnel was undertaken after invitation by the Indigenous community leaders and following formal visitation authorisation by the Dhimurru Land Management Aboriginal Corporation. After testing the four presenting applicants it was found they had unacceptably low English literacy and numeracy competencies. As other more distant outstations were likely to have fewer applicants and visits to them would require considerable expenditure of resources in preparation and visitation activity this strategy was abandoned. Thus, applicants are now sought by use of available media.

Selection Procedure

Since the initial ALERT programme applicant screening has become more intense. Hallmarks of the inaugural intake were a robust enthusiasm of executive management to get started, the absence of public knowledge how recruitment of Indigenous people was undertaken by the Australian mining sector, an eclectic adoption of contemporary HRM selection practices, and recognition of the formal education limitations of the narrow pool (21) of applicants. Acknowledgement of the absence of prior work history and low levels of English literacy led to investment in a *Discovery Session* (Pearson & Daff, 2008) that was designed and employed to assess applicants' aptitudes without prejudicing them for literacy and numeracy deficits. However, some literacy and numeracy screening was undertaken with flash cards. Nomination of non clan referees was required and they were interviewed. All successful candidates were medically examined.

A great deal of knowledge, acquired from successive ALERT programmes, has been embedded into refined screening mechanisms. For instance, endeavours to raise English literacy competencies with accelerated literacy procedures has generally, been unsuccessful, and now national reading tests are employed in the selection procedure. Candidates with less than year 10 English literacy scores are seldom chosen. In addition, the one to one assessing was expanded in 2009 to include a one week residential workshop to observe problematic behaviours (i.e., substance abuse, dysfunctional team

issues). The latest intake in April 2010 required selected *Work Readiness* or *Work Starts* trainees to complete all individual testing, to have provided all required work relevant documentation, and to undertake a compulsory a medical examination before being invited to attend the week long residential segment at Nhulunbuy.

Results

From May 2007 to May 2010 a total of 250 Indigenous people registered a formal interest in entering the ALERT programme. In round figures 100 were accepted after interviewing, but few progressed to obtain mainstream full time jobs in either the community, the refinery or the mine site. In summary, these results are shown as Table 1.

Table 1 presents categories of non accepted and accepted ALERT applicants, The extreme left hand block shows over one third did not proceed after application, and almost another quarter were found to be unsuitable because of literacy constraints or they were medically unfit. The deficit in English literacy is particularly disturbing when adults, who claim to have had extensive schooling cannot read a word of English, or do not know the letters of the alphabet, the days of the week, or the months of the year. Turnover accounts for a further 17.6 percent of leakages when candidates withdraw, are suspended for continual absences, regularly present unfit for work, or are removed to serve custodial sentences. The first job placement for ALERT trainees is less than 23 per cent, and within a year nearly half are likely to have moved back to their remote communities.

Table 1: Pathway of Applicants to the ALERT Programme from May 2007 to May 2010 % (N = 250)

Withdrawn	Non Selected Literacy	Medical	Turnover	Selected Community	RTA
34.8	13.6	11.6	Withdrawn 12.4 Dismissed 3.6 Custodial 1.6	6.4	16.0

Notes:

- a. After the first two ALERT intakes, which had 44 applicants, the required education threshold was incrementally raised with each intake to a desirable Year 10.
- b. Work position is only recorded to the first vocational appointment after the participant leaves the ALERT programme.
- c. RTA: Rio Tinto Alcan.

Table 2 summarises educational and vocational attainments by the number of Indigenous ALERT participants. The number of ALERT trainees who have graduated with a Certificate 1 or a Certificate 2 are few, but outstanding. These recipients are the first Indigenous Yolngu to be awarded this achievement by the Charles Darwin University. And the Indigenous Yolngu male, who has recently commenced an engineering apprenticeship, is also a prominent first event.

Table 2: ALERT Programme Accomplishments

Educational		Vocational	
Certificate 1		Community	16
	2007		
	2008		
	2009		
Certificate 2		Rio Tinto Alcan	
	2010	Refinery	27
		Minesite	3
Inaugural Yolngu	1	Training	10
Apprentice 2009			

Note.

Certificate 1 in Responses and Infrastructure Operations

Certificate 2 is a GTNT in a variety of streams such as Administration, Engineering or Metalliferous Mining Operations.

Also shown in Table 2 is the first vocational destiny of ALERT participants. A total of 16 members chose to work in community, and a majority (13) returned to their communities to work on specific tasks, usually a CDEP for the East Arnhem Shire. Indeed, some returned to the Gumatj Corporation cattle station at Garrathiya, some 100 km south south west of Nhulunbuy. There they have been productively engaged in timber milling and dwelling construction (Pearson & Helms, 2010). A total of 30 ALERT participants are employed in full time jobs at the refinery or at the mine site. Figure 3 shows a female ALERT graduate loading a truck, and Figure 4 is a male ALERT graduate and his 100 tonne haul truck. Figure 5 is an ALERT graduate who has chosen to work in administration. These appointments are gargantuan as they are the first Indigenous people to work in mainstream jobs at these locations since the Nhulunbuy mining operations were commissioned in 1972.

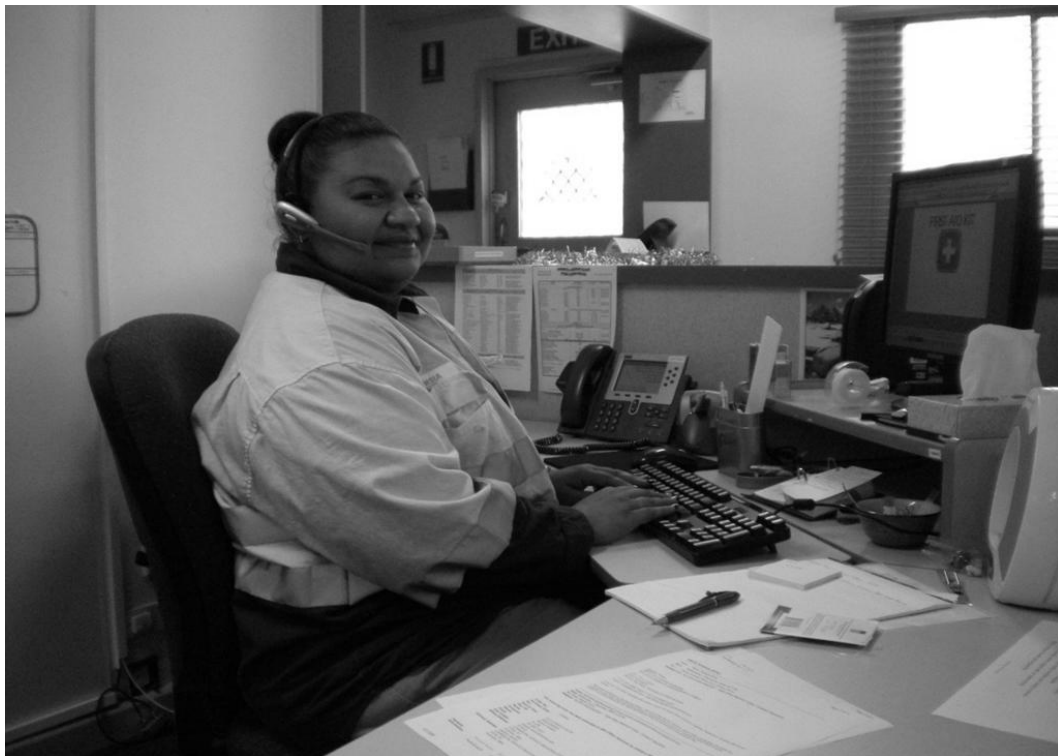
Figure 3: Female Indigenous Endloader Operator



Figure 4. Indigenous 100 Tonne Haul Truck Operator



Figure 5. ALERT Graduate Certificate 2 Administration



Discussion

The ALERT programme has been an evolving eventful journey blessed with a plethora of opportunities and challenges. Selection of suitable applicants has been an awesome task made more difficult by a lack of public documentation how Indigenous people are employed in the Australian mining sector. Almost every applicant presented without evidence of exposure to contemporary work experience, but all reported backgrounds rooted in hunting and fishing with regular attendance at cultural events. These preferences have been documented in the relevant literature (Altman & Gray, 2005; Altman et al., 2005). Justification for these hunter – gather pursuits is given by the renowned Yolngu leader Gallarwuy Yunpingu (2009) who states the activities are essential within the oral culture of the Indigenous Yolngu who need to regularly attend cultural events and festivals to learn the laws and traditions of their extant society. Despite education being employed for over 200 years to address the ‘Australian Aboriginal problem’ (Reynolds, 2005) the Indigenous Yolngu irregularly attend classrooms of Western education, which are perceived as instruments of assimilation (Coombs, 1994), that undermine their cultural heritage. Consequently, the English literacy and numeracy competencies expressed by the applicants were often well below the required benchmarks necessary for engagement in the mining sector (Hughes, 2008; Tripcony, 2000). In spite of extensive investment by the ALERT teaching staff a feature of the first two programmes was over one half of the participants irregularly attended and eventually withdrew or were suspended.

The ALERT education – vocation programme is mainly driven by social and pragmatic realities. Prominent contributions from the international arena for the principle of equal rights and self determination have been promoted by the United Nations for the protection and integration of Indigenous people (Humphury, 1995; Summers, 2004; Weller, 2009). And the International Council on Mining and Metals (*ICMM*, 2008) has advanced policies and direction for delivering better outcomes for Indigenous people. At the national level interest in Indigenous wellbeing has been demonstrated by a memorandum of understanding between the Mineral Council of Australia and the Australian Federal Government (Barker, 2006), which commits to improved outcomes for Aboriginal communities.

Recent Australian legislation has contributed to enhancing the socio economic opportunity of Indigenous Australians. Guidance from International discourse (e.g., Environmental Convention 1982, UN Conference on the Environment 1992) has been endorsed in Australian Environmental legislation (Harding, 1989) that gives commitment to socially aligned paradigms of sustainable development. In addition, the historic legal decision known as *Mabo* (*Mabo*, 2009), and the Native Title Legislation (*Native Title*, 2009), that was to follow in 1993 “... profoundly changed the direction and scope of relations between mining companies and Indigenous groups in Australia.” (Crawley & Sinclair, 2003: 363). Following from these two streams of the Australian statutes has emerged provision for employment and training within the mining land agreements between the Traditional Indigenous owners, the mining companies and the Australian State Governments.

An assumption the sharing of ore resources between Indigenous people and mining operations will create better prospects for remote communities is debatable. Indigenous representatives and miners conduct private and commercial in confidence negotiations, that the mining companies are resolute in not allowing the details to become public. And although royalties eventually flow to Indigenous national and local organisations there is a degree of inequality in the distribution of the funds. For instance, the Nhulunbuy mining tenements are leased from two Yolngu Indigenous clans (the Gumatj 80%, and the Rirratjingu) of the 13 prominent Yolngu clans of the East Arnhem Land region. Realising the commercial bauxite ore bodies will be exhausted within the next 20 to 30 years may have prompted both of these (two) clans to establish sustainable business ventures.

The evidence of Table 1 shows that while many Indigenous people of the Nhulunbuy region have enquired about ALERT few have undertaken serious investment to improve themselves or their community. Upon realising ALERT is not another welfare (dole) scheme many applicants do not

entertain joining ALERT or shortly after being employed withdraw. Within a context of obtaining income from welfare, royalty payments, humbugging or liberal working conditions of a CDEP, where an incumbent can be absent from work as much as 65 per cent of the time (Altman & Gray, 2005) to go fishing, hunting or attend cultural festivals, Indigenous people can be considerably distracted from obligations to work in mainstream jobs in the mining sector. Indeed, many Yolngu Indigenous people report a preference for participation in government economic programmes, which gives greater flexibility to be involved in their customary non market and cultural activities.

Conclusion

Reconciling the requirements for working in Australian mining contexts, and the mindsets of Indigenous Yolngu people is extremely difficult. The longitudinal data presented in this paper demonstrates few of the participants of the ALERT education – vocation programme successfully graduated and became engaged in mainstream jobs at either the Nhulunbuy refinery or the mine site. Moreover, few of those employed in this first job continued their employment, but preferred to return to their community to enjoy an alternative lifestyle. Notably, some of these Indigenous Yolngu did find useful work in the community within their traditional ancestral land.

Yolngu Indigenous people have mindsets that are foreign to industrial work climates. Indeed, their thinking is in frameworks of hunters – gatherer pursuits, that are strongly interlaced with community based obligations. Furthermore, these people are from an extant oral society that requires them to regularly visit and be involved in cultural festivals and events to refresh their knowledge of their laws, and traditions that define them. These vital activities compel them to withdraw from contemporary industrial work settings of inflexible industrial relations arrangements. Nevertheless, the evidence of this paper shows some of the ALERT participants have chosen to robustly engage in contemporary work arrangements, and together with achieving university accreditation, show they have been motivated to unnaturally embrace organisational values.

The reported observations attract criticism of the prevailing assumption Australian Indigenous people will exercise an opportunity to hold a mainstream job in the mining sector. In spite of international and national regulatory and policy environments advancing unqualified propositions that the granting of mining licenses will ensure the creation of mainstream jobs, to which many Indigenous people in these remote regions will aspire (and so become less marginalised), these linear arguments are shared by few of the ALERT participants. Moreover, education vocation systems designed to attract and prepare Indigenous people for working in mainstream mining jobs face the considerable challenge of retaining participants who realign their commitment from diligence to acquire knowledge and a preparedness to work in extremely onerous mining working conditions for a preference of dominant ‘softer’ community and cultural priorities. Furthermore, despite employment and work relevant training arrangements being a feature of land use agreement between Indigenous Traditional Owners, Australian governments and mining companies seldom are rigorous assessments of work readiness mainstream recruitment practices by mining corporations published while disclosure of Indigenous participation in the Australian mining sector labour market is cursorily perfunctory. Nevertheless, there has been a resurgence of interest in Indigenous employment, which is driven by legal and regulatory guidance, a strategy of addressing the persistent poor socio economic conditions of Australian Aboriginals, and the prospect of wealth creation for a range of stakeholders. The evidence presented in this paper (albeit obtained from one large refinery minesite) suggests the interconnectedness of these strands warrant inclusion of the cultural and economic ancestral heritage of Australian Indigenous communities.

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Work integrated learning in the Bachelor of Software Engineering program at Monash University

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Monash University

Work integrated learning (WIL) provides a rich and new learning experience for students between their current academic study environment and their future professional working life. It is a vehicle for applying theoretical and practical knowledge from the educational institutional setting with academic rigour in a real work place setting. The various stakeholders in WIL are: students, employers, academics and professional accreditation societies. WIL is gaining in popularity within higher education but there are questions that need to be addressed to ensure quality learning and teaching outcomes. The challenges that need to be addressed are: i) the academic assessment standards in WIL; ii) clear definition of roles and responsibilities of the various stakeholders; iii) professional accreditation requirement, and iv) evaluation of the learning outcomes.

In this paper, we describe four ways in which work integrated learning and industry engagements are achieved, and international partnerships are sustained in the Bachelor of Software Engineering program at Monash in: 1) Software Engineering (SE) Capstone Project that is run over 2 semesters of the fourth year of study with a project from the industry; 2) Industry Based Learning (IBL) program that has been offered for selected high achievers in the BSE program. Students in IBL work full-time in the partner's companies for 22 weeks in the 3rd year of their study; 3) Paid vacation employment of 12 weeks that has been a condition for eligibility to graduate from BSE and must be undertaken during the summer after third year of study; and 4) Monash University Undergraduate Research Programs Abroad (MURPA) program which provides selected students from BSE a great opportunity to undertake an 8-week summer semester international research project at the prestigious University of California, San Diego. The findings from WIL in BSE can be adapted to other disciplines. This paper makes a contribution to the design of academic standards and assessment practices in WIL by describing the vibrant undergraduate program which has embraced WIL and is reaping benefits for students, school, Faculty of IT and the University.

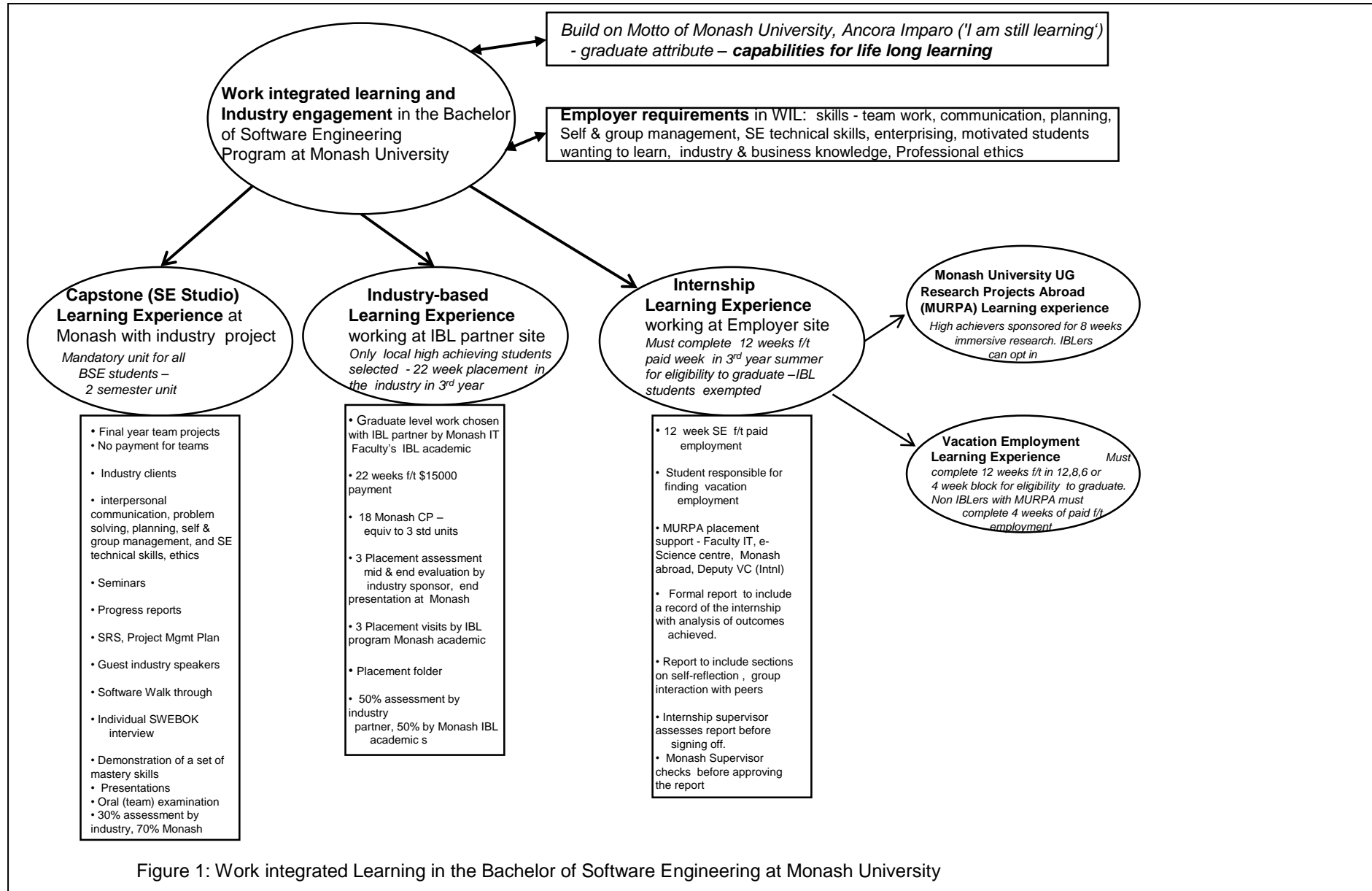
Keywords: work integrated learning, capstone project, industry-based learning, internship, vacation employment

Introduction

Australian Learning and Teaching Council funded project survey (ComputerWorld, 2009) conducted with 700 fresh graduates from 21 Australian Universities shows that 70% of ICT graduates would have liked to have had more hands-on work experience while studying. President of the Australian Council of Deans of ICT and Australian Computer Society Foundation chairman have said that there is no better way of learning the requirements of the work place than being at the workplace and doing the work there. However it is important to improve academic standards and assessment approaches practised in work integrated learning (WIL) to ensure quality learning outcomes. A number of varied assessment practices are practised in WIL which pose problems in achieving quality goals as detailed in the study funded by Australian Learning and Teaching Council in Jones et al. (Jones et al. 2008).

This paper addresses some of the challenges for ensuring quality learning and teaching outcomes in work integrated learning programs. The discussion revolves around a particular case study of the undergraduate Software Engineering degree program at Monash University but is also applicable in general to other disciplines Refer to Figure 1 for a pictorial abstract of the work integrated learning in BSE at Monash.

Bachelor of Software Engineering (BSE) at the Clayton School of IT has been delivering quality software engineering education since 1999. BSE is accredited by Engineers Australia and Australian Computer Society. Assessment for accreditation is based on the curriculum: structure and content, the teaching and learning environment and the quality assurance framework. SE curriculum has evolved since 1999 at Monash and has maintained its product quality by benchmarking against various international efforts such as the CMU-SEI effort of early 1990s, ACM/IEEE efforts on Software Engineering Body of Knowledge (SWEBOK, versions 2001-2004) and the curriculum guidelines for each major area of computing in Computing Curricula (CC2001) such as a Software Engineering volume (SE2004). The accrediting body's philosophy is that educational institutions must "get closer to industry" as part of engagement with external constituencies, be aware of and be responsive



to industry demands for quality SE graduates. Hence we have steadily moved from just having a capstone project as a compulsory WIL component in the first iteration of the degree with 2002 graduates to including vacation employment as a eligibility to graduate requirement in 2006 as per the requirements of the accrediting body, and more recently in 2008 introducing the industry-based learning for high achieving local students, and a MURPA program in 2009 to provide a unique research project and life experiences in a leading international overseas research laboratory. This move to a rich WIL experience in BSE (see Figure 1) has strong support also from the other stakeholders: students, employers, industry partners and overseas research laboratories, which is required for a quality program.

In the next section, we consider the Australian Federal Government regulation with respect to student fees for courses which have work-related component. Then we describe the varied assessment styles in the WIL components in BSE at Monash . This is followed with sections that discuss each of the WIL components (see Figure 1) which show details of the assessment styles. Then, a conclusion is provided.

Varied Assessment styles in the WIL components

As discussed in Jones et al. (2009), within Australia, federal government regulation dictates whether students can be charged tuition fees for courses which have work-based components (Commonwealth of Australia, 2004). The regulations have made the higher education sector consider the differences between experience and learning in the workplace. The implications of setting academic standards in such a setting is that courses which charge fees during work-based program should be able to demonstrate that students in such work-based activities are engaged in learning based on curriculum design set in the university. In cases where there is no revenue received by the institution, the university is not required to manage and direct the student's activity whilst the student is working in the industry based activity. So, academic standards that can be set in work-integrated learning need to have varied assessment styles depending on the form of academic interaction with the students during work-integrated learning. The capstone project in BSE and the industry-based learning (IBL) fall into a category where the University sets clear assessment criteria, manages and directs them as detailed next. In the internship programs of vacation employment and MURPA program, students and the industry/research partners are given overall guidelines but the management and direction is left to the workplace. Next, we describe the varied assessment styles in the WIL components in BSE.

Our BSE Students undertake the capstone projects in the university and so the academics use the well established measurement style with preset assessment criteria (see Figure 2). Similar assessment style is adopted in the industry based IBL projects as well. But, researchers such as Wiggins (1998) and Jones et al. (2008) argue that such assessments do not really fit the WIL learning environments as they are extrinsic from the workplace experience. Knight and Banks (2003) question the wisdom of using pre-set assessment criteria as the accepted practice. They state that complex learning tasks when reduced to its component tasks for establishing assessment criteria reduces the capability for making global judgement about the examinee. The author concurs with this view as this problem arises in her other subjects where pre assessment break down criteria needs to be augmented with other statements to enable the assessor to adjust the overall marks/grade assigned for a complex learning task. Such a view is in contrast to an emphasis on measurement and detailed assessment criteria to ensure consistency and validity in assessment (Jones et al. 2008).

For dealing with employability concerns and WIL, Knight and Yorke (2003) strongly advocate using low stakes and formative assessment as opposed to high stakes and summative assessment. Knight and Yorke (2006) question the degree to which complex learning in a work place can be captured adequately in summative assessments beyond a pass/fail grade. This is certainly the case for the assessment in internships in both vacation employment and MURPA program. The internship learning outcomes do not get assessed in the same detail as for the university based units.

So, the capstone and IBL projects deal with summative assessment styles whereas the internship programs in BSE deal with formative assessment styles.

Next, we describe each of the WIL components in some detail.

Academic standards in SE capstone projects

Students in the capstone project are required to address an open-ended complex problem with broad-based multi-disciplinary considerations and embracing the full design cycle. Refer to a list of capstone projects from 2002-2009 (Ramakrishnan, 2009a). The capstone project is well orchestrated in the BSE program – Software Engineering Studio Project (Ramakrishnan, 2003). Students work in teams on an industry specified project, negotiating a formal analysis and the development of a legal IP agreement before embarking on the design and development cycle. The projects embrace every aspect of Software Engineering product development in a real industry setting and conclude with the formal processes of product acceptance testing, presentation, and documentation. Student team progress is tracked and assessed via interviews, peer reviews, journal & diary entries of project meetings minutes. Students are exposed to professional practice thorough a regular interface with the industry client. During the accreditation visit in 2003, Engineers Australia reported that our BSE program fulfilled one of their important requirements that all professional engineering programs include a major, capstone thesis/project activity.

Next, we list the generic attributes or capabilities that a graduate must develop in a degree program as required by the accrediting body, Engineers Australia.

Our BSE program must ensure that the graduates develop to a substantial degree the generic attributes or capabilities, (a) – (j) listed below, to satisfy Engineers Australia's accreditation of professional engineers. The generic attributes are as follows:

- ability to apply knowledge of basic science and engineering fundamentals
- ability to communicate effectively, not only with engineers but also with the community at large
- in-depth technical competence in at least one engineering discipline
- ability to undertake problem identification, formulation and solution
- ability to utilise a systems approach to design and operational performance
- ability to function effectively as an individual and in multi-disciplinary and multi-cultural teams
- understanding of the social, cultural, global and environmental responsibilities and the need for sustainable development
- understanding of the principles of sustainable design and development
- understanding of professional and ethical responsibilities and commitment to them
- expectation of the need to undertake lifelong learning, and capacity to do so.

As required by the Engineers Australia Accreditation Manual, our Software Engineering Curriculum provides an integrated set of learning activities and experiences to the students and endeavours to capture the following elements in the kinds of percentages suggested in the manual:

- mathematics, science, engineering principles, skills and tools appropriate to the discipline of study (not less than 40%)
- an engineering discipline specialisation (about 20%)
- integrated exposure to professional engineering practice, including management and professional ethics (about 10%)
- more of any of the above elements, or other elective studies, hardware (about 10%).

The BSE accreditation document in 2003 and a paper titled Accreditation of Monash University Software Engineering (MUSE) Program (Ramakrishnan, 2007) show the elements of total learning experiences in the four year SE program through the generic attributes. Here, we provide only the % break up in terms of generic attributes for the BSE capstone project:

- Maths, Engineering principles, skills, tools related to S.E. -relate to Software Engineering body of knowledge (SWEBOK): 20%
- Design, Analysis & Projects: 20%

- Discipline Specialisation relate to SWEBOK & Project management body of knowledge (PMBOK): 30%
- Exposure to Professional Practice & Professional ethics: 30%

Roles, Process, Product and Assessment in SE Capstone projects

In this section, we describe the role and expectations of the project supervisor(s), clients and student teams. The process of development and assessment is described partly in SWEBOK terms and also laid out in the milestones table (Figure 2).

Final year Software Engineering students are required to undertake a large software project for a client and work in teams. The teams are responsible for their own project management, with guidance from a supervisor. The teams are expected to use proper techniques and tools that enhance product quality including appropriate analysis and design tools, quality reviews, appropriate software testing and a high level of user involvement. The quality of the product is not judged solely on the merits of the software but also is dependent on packaging. Furthermore, documentation must be produced at the appropriate point in the development of the product.

In addition to the products produced by the project, the process by which these products are produced is an important aspect of the subject. These processes relate to how/when/why certain actions are undertaken by the group. It is important for the group to observe their process with the aim of improving it. For example, the meeting process (group meetings, supervisor meetings and client meetings etc) - the products of these meetings relate to minutes, action lists and information for further work. The process relates to how a project team identified and recorded information, how they involved all people present, why they took a certain approach to an interview and whether it was successful. It relates to the group reviewing not just the products but also reviewing the process by which the product is produced.

The project runs for two semesters, inclusive of all non-teaching periods. Students begin the project in semester 1 and complete it at the end of semester 2 (late February to late October in total). Lectures/Seminars are held during teaching weeks as announced. It should be stressed that these are seminars and not formal lectures and hence groups and individuals are expected to actively participate by contributing experiences and asking questions. Student seminar talks, group presentations, incremental releases (Prototypes) and walkthroughs take place during the scheduled seminar time in both semesters.

The project life-cycle is constrained by a fixed schedule for hurdle times and milestones (deliverables) throughout the year. The roles of students in the project are to be determined by the project team at the beginning of the first semester. For example, each project is expected to assign the role of project manager to one of its members for the duration of at least one semester. The role of a project manager includes keeping track of and reporting the project status, planning, work allocation and time management. The project supervisor (an academic) provides advice on this but is not expected to manage the project. The author is in charge of this subject and has the overall responsibility for the subject. She supervises one of these capstone projects per year, but the remaining projects are allocated to other academics who form part of supervision panels during some of the assessments. Students are expected to deliver their software and software artefacts (requirements, design, test cases, code, documentation etc) according to the milestone schedule published on the subject web pages. After delivery, often the client may request changes. After consultation with the supervisor, some of those changes will be termed "reasonable changes" which students must complete by an agreed time. Some changes may require balancing the task schedule because of resource and time constraints. Hence students are advised to track change requirements and approval processes thoroughly - best with a formal tracking system - to document agreements with the client.

Role of the Supervisor: Each group is assigned a supervisor for the whole year. They need to meet with the client at least once at the start of the project to form an understanding of the project requirements. The supervisor meets with their student project team each week during semester 1 and 2. The role of the supervisor is to: advise and assist the work flow of the group; review the work produced by the group and suggest changes/improvements as necessary; detect significant deviations from the project scope and time estimates; provide an official high-level liaison point between the client and Monash University; award marks to the group and to group members; if appropriate, the supervisor may attempt to manage conflict resolution between group members and/or the client; make suggestions about down-sizing the initial project scope and assist with complex negotiations with the client. However, for the most part, client liaison is the group's responsibility.

Agenda at Supervisor Meetings: Groups meet their supervisor on a schedule agreed on between themselves and the supervisor every week. Each such meeting will have at least the following agenda: record which students attended the meeting as well as any apologies for non-attendance; review the action list from last meeting, with particular attention to the tasks that were allocated to each group member and discuss the progress of the project. This will include: A general discussion of the current state of the project; reviewing any changes to the scope as agreed with the client; reviewing any documents that are currently due and decide a time for the next meeting (planned at this stage for the same time every week).

Role and Expectation of the Client: The client should provide the student team with a realistic project, which can be completed in the timeframe allowed (12 hours/week per student for 2 semesters of study) for the final year SE (capstone) project. The client's role is to be available on a regular basis, usually once a week for students to elicit the client project's requirement and to check whether the right product has been built and whether the product has been built right. He/she should be honest in the assessment of the student teams' work and whether it meets his/her expectation/needs. The client is also required to conduct beta-testing at their site or elsewhere as agreed to before and sign-off accepting the project before the project is deemed completed by the student team. It is also important for the clients to appreciate that student teams are expected to develop software engineering process skills, learn how to manage group dynamics, manage teams, conduct meetings, time management etc. The team members may also need to learn new technical skills. The client must remember that both process and product aspects are important in the capstone project for student teams to mature into practicing Software engineers and all this takes time. This has been explicitly included as some clients were interested mainly in the product delivered and were not interested in students spending time on process aspects.

Hurdles and Milestones in SE Capstone Projects

Student teams are expected to meet the hurdles and milestones as published on the SE capstone project web page. Hurdles: Each fortnight, a set of progress summary documents must be prepared for discussion with the supervisor. The other deliverables are as set out in the hurdles table. A legal agreement is completed for each capstone project and simulates a commercial consultancy situation for the final year students. The client agrees to provide the project team with access to data and systems in order to facilitate development of the system which forms the basis for assessment for the students. The student assigns to Monash University ownership of all rights in any IP arising from the project including future copyright. The client owns the IP rights, including copyright, and grants the university a royalty free perpetual licence. A revised legal agreement must be used where there is an off shoring component for the project as the off shoring party may be a paid consultant or another student team from an overseas educational institution.

Individual SWEBOK Interview: One interview is conducted each semester. The interview is a formal exam. It assesses the capability of the student to apply the foundation knowledge of software engineering. The supervisor picks one or two focussed areas randomly and the student being

examined recaps the relevant knowledge (very briefly and to the point) and demonstrates deep understanding of its application to the current project. If the project team had good reasons not to apply the knowledge in question, the student being examined must still demonstrate understanding (for example by explaining possible application of this knowledge given appropriate change requests etc). Students must prepare well for the interview in theory and application. The interview also allows the supervisor to gain a better understanding what the student has learned from doing the subject; how well the student worked as a member of the project team.

Figure 2: Milestones – Semester 1 & 2

Sem 1	Milestone	Group Marks	Individual Marks	Assessed by
as announced	1 seminar per student		5	Lecturer, supervisors and peers (weighted)
10	Software Walkthrough		5	Supervisor & Lecturer
10-12	Group Presentation of Project	10		Lecturer and supervisors
11-13	Individual SWEBOK Interview		10	Supervisor panel
11	Final PMP and SRS	15		
TOTAL (50)		30	20	
Sem 2				
10	Software Walkthrough		5	Supervisor & Lecturer
10-12	Group Presentation of Project	10		Lecturer and supervisors
11-13	Individual SWEBOK Interview		10	Supervisor panel
11	Final Product and Report	20		Supervisor & Lecturer
TOTAL (50)		35	15	
GRAND TOTAL (100)		65	35	

Each student is assessed individually. The student is asked specific questions with respect to SWEBOK: software process/ product, software architecture, analysis and design methods/tools/patterns, communication with the client and the rest of the team, agile method, team work /environment/collaboration, conflict resolution, SE environment/testing methods and tools, configuration management, product quality, technical skills learned, commitment, consistency and quality of project work, software assets and documentation.

The lead lecturer for the unit (the author) together with the other supervisors review the way the group have managed the project, taking into consideration such things as: group communication, interaction and cooperation, management of deadlines and timelines, and liaison with the client and supervisor for arriving at a project Management mark.

Criteria for Selection and Academic Standards in Industry-based Learning (IBL) Projects

Students are selected into Industry-based Learning program (IBL) in BSE based on their marks in year 1 & 2 of their study and an interview process. Refer to IBL website (IBL) for more information.

IBL involves students working full-time at the partner companies for 22 weeks during the third year of their degree. The students receive a scholarship of \$15000 for this period and it is counted as Monash 18 credit points, which is equivalent to three units. They are exempted from having to complete 3 elective units in year level 3. Due to visa restrictions, the projects are available for only the local students. IBL is part of the BSE curriculum and therefore it is assessed formally and credited towards the BSE/IBL degree.

Students are assessed by the industry partner where they work and also by Monash academics in charge of the IBL program. Both award 50% each towards the assessment. There are 5 assessments over 22 weeks as listed next:

1. mid placement assessment conducted by the industry supervisor at the partner site
2. end placement assessment conducted by the industry supervisor at the partner site
3. end placement presentation at Monash assessed by a panel
4. placement folio assessed by Monash IBL academic
5. interviews by Monash IBL academic during their 3 visits over 22 weeks

Mid placement assessment is designed to provide feedback to students on their performance, so that they can work on their weak areas to show improvements at end placement assessment. (1) – (5) provide students with an opportunity to reflect on what they have learnt and include it in (3) & (4).

Students appreciate this opportunity to work on funded practical real world problems in the industry during their undergraduate study. The partners are able to get acquainted with the calibre of some of the bright BSE students over 22 weeks and are able to offer jobs to these students once they finish the degree. Monash benefits by these motivated students resuming their final year of study in group projects such as capstone projects and other units with a desire to excel in studies and either pursue further studies or enter the industry.

Internship Learning Experience and Reflection

As per Engineers Australia's accreditation requirement, software engineering students must complete 12 weeks of full-time employment at an employer organisation. This is a prerequisite for their eligibility to graduate as a software engineer and so part of the requirement for completing the BSE program at Monash. The accrediting body felt strongly that although the capstone project gives the students a well rounded SE project experience, it is still within the confines of the university albeit for a real world industry client's project. This requirement is waived for IBL students as they complete a 22 week full-time placement with payment at a partner organisation.

Students are required to produce a report at the end of their internship which must demonstrate that they worked in a professional engineering setting, and should include an overview of the project. It should describe how the theoretical/ practical knowledge learnt in the BSE program was applied in the project, an analysis of outcomes achieved, and any difficulties experienced. It should also contain a section reflecting on what was achieved at a professional, personal and peer group interaction level. The formal report is checked by the BSE course director and needs to be signed off as adequate for the students to be eligible for graduation after successful completion of all their units of study in BSE. A reflective essay is part of the IBL and internship learning experience (Martin and Hughes, 2009).

There are 2 forms of internship. Students who engage in a standard 12 week full-time SE employment with an employer are required to find their own employment. This is called vacation employment. Refer to the Vacation Employment web site (VacEmp) for more details. BSE students who are high academic achievers in the first 3 years of their study and have attended at least some of the MURPA research seminars at Clayton campus, Monash are eligible to apply for a MURPA placement at the University of San Diego (UCSD). Refer to MURPA web site (MURPA) for more details.

Vacation Employment

Students are able to complete the 12 weeks of vacation employment in one block of 12 weeks, 2 blocks of 6 weeks each or 3 blocks of 4 weeks. Although this is seen as an independent student activity away from the university, students are given guidelines as to what is required for them to achieve over the 12 weeks over the university holidays. The students are required to submit a technical report documenting the SE work done for the vacation employer. The employer has to sign off the student's report.

Monash University UG Research Abroad

BSE students are required to complete 8 weeks of immersive research in e-Science area with leading researchers from UCSD as mentors. Students are also allocated a Monash mentor. They undertake the research program agreed with the UCSD mentor and produce a written research report. They are required to make a research presentation describing their research project and analyse their outcomes. They also act as ambassadors for the program by participating in information sessions for potential MURPA students and make informal presentations reflecting on their project, benefits of the program for their personal intellectual growth, group interaction at UCSD and challenges of working on interdisciplinary areas of research such as medicine & SE projects, astrophysics & Computer Science projects etc. Once they have completed the MURPA program, they have to complete the remainder of the 4 weeks of the internship in a vacation employment role, unless they have completed an IBL option in the 3rd year of study. It is hoped that students who complete the MURPA program will take up Honours in the final year of study and continue with a PhD program once they complete the Honours year successfully.

Conclusions

Work integrated learning is seen as a rich and rewarding learning experience for students between their current academic study and their future professional working life by all stakeholders: students, employers, industry partners, local & overseas university research partners, professional accreditation bodies, and the universities. Structured work placements such as IBL may be difficult to be sustained as an effective learning environment due to limited academic resources provided for such programs in the university and/or due to limited availability of industry partners willing to participate in such programs. Hence it is offered only to selected high achievers in BSE but the capstone work integrated learning project is mandatory for all BSE students. The assessment criteria and academic standards prescribed for university based units such as in capstone projects may not be appropriate or viable for internship programs. The Professional accreditation body, Engineers Australia has a strong requirement that a vacation employment must be independent of the university taught/closely managed units. All of these above requirements suggest that there is a place for various models such as shown in Figure 1. We have presented the details of the WIL components in BSE and have shown how the varied assessment styles in the WIL components together make a rich framework and experience for BSE students.

We conclude that the work integrated learning in the Bachelor of Software Engineering at Monash University provides a rich framework for adoption by other SE, Computer Science and IT degrees as well as other disciplines.

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Looking back whilst moving forward – implementing Learning in the Workplace and Community at Victoria University

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In 2007 Victoria University (VU) embarked on a major repositioning which aimed to put students' needs at the centre of all its activity, and had a focus on student employability. The University implemented 5 commitments, one of which was the integration of Learning in the Workplace and Community (LiWC) – VU's term for work-integrated learning – into all VU courses. The intention is for LiWC to be embedded within courses and appropriately developed throughout a course. The result is that implementing LiWC at VU is a major project not only in terms of curriculum design, but also one of organisational change.

This paper will consider VU as a case study for implementing an institution-wide work-integrated learning, providing an overview of the program and offering insights into the complexity of implementing a large-scale organisational change program. It will outline the implementation of an institution-wide LiWC project, and consider the issues and challenges of such a major organisational change project.

The paper will look back and consider the lessons learned from institution-wide implementation of LiWC including the importance of key pedagogical and curriculum strategies, staff capability and the significance of an institutional framework that drives the project. The paper will also outline the key challenges that remain to be addressed as an institution, including the evaluation of the LiWC program across the university.

While the institution-wide implementation of LiWC at VU is an ongoing process, it is one that has major implications for VU. The process of reflecting on the challenges of organisational change and progress made will help inform future planning. The key challenges and lessons learnt from implementing institution-wide LiWC at VU will be valuable for those looking to implement work-integrated learning broadly in their institutions.

Keywords: institution-wide implementation, program evaluation, lessons learned

Introduction

In August 2006 Victoria University's Council endorsed an ambitious program of university-wide change, entitled *Making VU: A New School of Thought*, and from 2007 Victoria University (VU) began implementing this significant initiative to remake the university. The intention underpinning this program was designed to enhance the University's distinctive mission to become a leader amongst universities by responding to the changing nature of work, the workplace and the workforce, being strongly connected to the community, building capacity in Melbourne's west and engaging globally.

The Making VU program was tasked with facilitating the implementation of five key Commitments VU made to students, enterprises and communities. These Commitments were based on: collaboration with industry; a focus on careers; providing students with choices; being connected to enterprises; as well as our community and others facing similar changes.¹⁷ The commitment to focus on student careers is based on integrating Learning in the Workplace and Community (LiWC), VU's term for

¹⁷ Victoria University. *Making VU 2016: A Statement of Purpose, Victoria University's Strategic Direction and Priorities, 2008-2016*, Melbourne, 2008, page 8.

work-integrated learning, into all courses, and for all our students. For VU, this is a major re-positioning, and LiWC lies at its heart.

A “co-located, multi-disciplinary” Making VU unit was established to guide the implementation of all five of these Commitments. The unit was designed to establish a “critical mass within the institution that would work collaboratively with organisational areas to implement the new initiatives through building individual and organisational capability”.¹⁸ The Making VU unit combined a program management unit with staff, working in small project teams, dedicated to implementing each of the five Commitments. The LiWC project team worked together with staff from another VU units, the Portfolio of Learning for Work and Community Service, bringing both strategic and operational aspects of LiWC implementation into a common team approach.

Embarking on this sort of strategic change initiative within a university is, of course, not unusual as many institutions remake themselves in response to both internal and external pressures. Scott, Coates, and Anderson, in their investigation into Australian academic leadership, suggest that there is a “set of higher education specific pressures on universities to change, which, in turn, are testing the extent to which these institutions and their leaders and ‘change capable’”. In VU’s multi-sector institution these pressures are not only higher education specific, but also encompass the vocational and further education sectors as well. Scott, Coates and Anderson argue that “formulating high-quality responses” to change forces is not the only important part, but “making them work consistently and effectively in practice is the central challenge”.¹⁹

VU’s approach to LiWC is to implement a range of LiWC activities in all courses and for all students. The underpinning policy is strongly focused on assessment of LiWC activities, which will comprise a minimum of 25 per cent of all assessment in a course, rather than the type or length of the activities undertaken (Courses deemed ‘short-term’, ‘preparatory’ or ‘research only’ are exempt from these assessment requirements, but are still expected to embrace the spirit of the policy). VU’s focus is to use workplace or community settings as a context where students can learn *in* and *through* work, rather than just learning *about* or *for* work. This means that the LiWC activities themselves that are being implemented across the university are broad and diverse, encompassing projects, placements, fieldwork, apprenticeships, simulated environments and research, undertaken with both industry and community organisations.

Thinking about the process of implementation

As a result of this whole-of-university LiWC initiative, VU is beginning to be recognised as a leader in the field of work-integrated learning. VU was highlighted in the book *Work Integrated Learning: A Guide to Effective Practice* by Cooper, Orrell, and Bowden published in 2010, which summed up the change processes undertaken by VU in implementing the change program as follows: “Policies were reviewed and rewritten to ensure that they supported the new vision; the concept of curriculum was revisited; and opportunities for the professional development of all staff and for conversation and research were established so that internal staff and external stakeholders could appreciate and engage with the vision”. This book suggests that the Making VU initiative “represents one of the clearest, most comprehensive conceptions of an enterprise approach to engagement with community and industry”.²⁰ When statements of this kind are stated plainly in one paragraph it appears as if the project was easy to implement, and in fact it sounds as though the project has already been fully implemented. In this paper, however, we wish to analyse this idea of a smooth transition to LiWC implementation by reflecting on the challenges that have been overcome and then contemplate the approaches that remain.

18 Tara Schurmanns and Wendy O’Connor, “Implementing Sustainable Change – how do we make Making VU?”, paper presented to the 2009 ATEM conference, page 5.

19 Geoff Scott, Hamish Coates, and Michelle Anderson, *Learning Leaders in Times of Change: Academic Leadership Capabilities for Australian Higher Education*, University of Western Sydney and Australian Council of Educational Research, May 2008.

20 Cooper, Orrell and Bowden, page 30-31.

For the remainder of this paper the authors will provide their perspective, developed from their experience working within the small, centralised LiWC project team, on both the journey of the team and the broader VU journey over the last three years. In doing so the aim is simply to set out the sorts of challenges the team and broader institution have faced (and still face) trying to implement the LiWC policy. The LiWC project team was a driver and supporter of change. The team investigated and recommended infrastructure to support implementation with the expectation that Faculties, Schools and other central university units would implement LiWC. The central team was not tasked with “doing” LiWC, merely driving the change and providing support. Hopefully the lessons learned from this process, from both positive and challenging events and outcomes, can inform other institutions or programs thinking about implementing a widespread work-integrated learning program requiring significant institutional change.

Looking back while moving forward

Why must we look back while moving forward? Because from the outset, the LiWC project team have been, simultaneously planning and implementing, without the luxury of extensive scoping and planning first then implementing later. This would be the first lesson learned from the process of implementing LiWC at VU.

The original LiWC project plan, in retrospect, did not give sufficient emphasis to scoping the current state of LiWC at VU and the broader nature and extent of the pedagogical change required to implement LiWC across the institution. As such, the team underestimated just how complex the change was that was being asked of staff, and how much time and the level of resourcing it would require. Looking back, the team recognises that it did not fully realise what a significant cultural shift it was embarking on, and experienced considerable challenges in managing the expectations of VU managers, staff and even the team’s own expectations, about how the project would proceed and at what pace. The LiWC project could have benefited from more emphasis on the underpinning change management processes involved while still in the planning phase.

A more thorough appreciation and understanding about processes of institutional change might have led the team to question, and perhaps move away from the heavy research focus in the project to include a greater focus on engagement with staff. There was an assumption in the project plan that if we researched best practice, both in our own and other institutions and developed plans of action to move forward, then LiWC implementation would be embraced more vigorously. While research is no doubt very important, the project plan did not at the outset factor in the complexities of necessary engagements, the time consuming nature of cultural change, and the pace of response that was sometimes encountered. This meant that some of the timelines for the project were very optimistic, and indeed the LiWC team are still working diligently towards supporting the embedding of LiWC across VU. Although the team have considerable traction across the University there is still some “moving forward” required.

What worked well

The project has been guided by a strong foundation – the LiWC Policy and Guidelines – the first of the project team’s key deliverables.²¹ The policy was revised from an earlier Learning in the Workplace policy with the development of a discussion paper which was used as the basis of extensive consultation and followed up with the provision of detailed professional development for staff on its content and implementation.²²

21 For the LiWC policy see <http://wcf.vu.edu.au/GovernancePolicy/PDF/POA081119000.PDF>

22 Judie Kay and Leoni Russell, “Learning in the Workplace and Community - Discussion paper to inform review of policy”, unpublished paper, Victoria University, February 2008.

One of the most positive aspects of the implementation of LiWC, and all of the Making VU initiatives, was the active involvement of senior management at all levels of the project. Cooper, Orrell, and Bowden suggest that change at VU should be closely observed because of its comprehensiveness, but also because of the “deep commitment by, and day-to-day engagement of, the senior institutional leaders”.²³ Each of the Making VU reforms was led by a “Commitment Leader”, with LiWC being led by the PVC (Teaching and Learning). Scott, Coates and Anderson’s study of academic leadership in Australia highlighted how “being able to implement initiatives successfully and sustainably is seen to be a critical factor for effective leadership,” and the clear vision, high-level support and dedication offered by the PVC (Teaching and Learning) has been critical to implementation of LiWC at VU.²⁴

Leadership and guidance was also provided by a Project Advisory Group (PAG), which met monthly over the life of the project. After taking some time to gather momentum, the Project Advisory Group developed to offer consistent support and a valuable forum for facilitating communication with, and understanding developments in, the Faculties, and for helping to engage with Faculty staff. As indicated above, the early establishment of the PAG provided a mechanism for communication flow between the central team and university staff.

Another very positive aspect was the establishment of a strong multidisciplinary team to drive the project forward. The team was comprised of members from both the strategic Making VU unit and staff with operational responsibility for LiWC, from the Portfolio of Learning for Work and Community Service. The LiWC team members brought a variety of complementary skills that proved important for scoping and implementing deliverables. The team also demonstrated dedication and a strong sense of teamwork, the importance of which cannot be underestimated. Scott has described the importance of teamwork to effective change management: “the teams necessary to drive the change process require people who can work together productively and with focus. They require people who are capable and willing to take on leadership roles when needed”.²⁵

The strong informal networks that important members of the team brought with them to their work, both inside and outside of the organisation, have also been important to the implementation of LiWC. Networks and communication have been vital to encouraging staff to embrace the spirit as well as the letter of the policy, and to building momentum. These networks have been complemented by the development of a ‘community of practice’ involving practitioners committed to LiWC. Forums have also been organised to promote best practice across the university, such as the regular LiWC Innovation Showcase, LiWC Workshops, and a forum to publicise recent research into the attitudes and perspectives of our host organisations to LiWC.

The LiWC team has always been visible in key meetings (for example by attending faculty planning days, school meetings, course review panels) and numerous campus conversations, and has worked closely with operational units. Extensive engagement and consultations with faculty representatives, including all heads of schools, was a key feature of important project deliverables, including a project to identify and cost LiWC activities. The Director of Making VU and the LiWC Commitment Leader were involved in numerous consultations, and also championed LiWC in their engagements with university committees.

Another positive aspect of the implementation of LiWC at VU has been the encouragement the policy provides for teachers to explore creative approaches to pedagogy. LiWC is part of broader efforts to support teaching and learning innovation at VU. The 2008 Diamond Database project collected a range of case studies that exhibit innovative practice and disseminated them amongst all staff. This

23 Cooper, Orrell, and Bowden, page 31.

24 Geoff Scott, Hamish Coates and Michelle Anderson, *Learning Leaders in Times of Change: Academic Leadership Capabilities for Australian Higher Education*, University of Western Sydney and Australian Council of Educational Research, May 2008.

25 Geoff Scott, *Change Matters: Making a Difference in Education and Training*, Sydney, Allen and Unwin, 1999, page 170.

showcasing and recognition of innovative practice, supports teachers to try creative pedagogical approaches to meet the needs of their students.²⁶

Challenges for the LiWC team

While the above points were highlights of the program, the team also faced a number of significant challenges, many of which are related to staffing dimensions of the project. The first is our own position as a small and central team devoted to supporting LiWC. Like all universities implementing WIL, ownership and implementation at the school and faculty level is paramount. The LiWC team had a centralised function in driving the initiative but was not solely responsible for implementation. In late 2009 members of the central team moved into other areas of VU to continue LiWC work, signalling a move away from the former centralised structure towards a more devolved model for implementing the project. Although LiWC has considerable traction across the university, there is some risk that the project may lose some momentum.

LiWC and the nature of teaching work

A major challenge faced by the LiWC project team was providing educational support to staff to either significantly change or continuously improve their learning and assessment strategies to accommodate LiWC. Work-integrated learning has the potential to have a strong impact on the nature of academic work and the types of skills that are needed for academics to facilitate students' learning. Many staff recognise the benefits that LiWC can bring to their students, the university and the community, and realise that they need academic support to gain the required skills to implement and further develop LiWC in their courses. The implementation of VU's LiWC policy resonates with the views expressed in Skills Australia's workforce development strategy, which recognised the need for development of the academic and teaching workforce to deal not only with an ageing workforce but also with a changing curriculum and education requirements. Skills Australia writes that: "The Australian tertiary education sector itself needs a new and different repertoire of responses to help create a step change in workforce development at the enterprise level... Industry also expects both the higher education and VET sectors to expand work-integrated learning to increase the relevance of the learning experience. While this is the standard model for apprenticeships and traineeships, it is inconsistently found elsewhere in the VET sector and in higher education".²⁷

Skills Australia recognises as "critical" the development of staff skills in teaching a wide array of learners with a broad range of teaching and learning strategies.²⁸ These issues are identified as a particular issue for staff in VET, who need skills in teaching, learning and assessment, in teaching in diverse situations, and "they also need to work with industry and enterprises and maintain their industry knowledge".²⁹

Griffith University WIL practitioners Brimble and Freudenberg have identified staff reticence to engage in work-integrated learning as an issue in implementing WIL programs: "We contend that pervasive factors that undermine WIL include the lack of interest from the academic community and a lack of resources for teaching and learning development (coupled with the comparatively resource intensive WIL activities)."³⁰ In the project team's experience, a lack of interest was not so much of a barrier as the changing teaching and learning practices required to implement the policy, and the levels of support needed to develop these new skills. As higher education change expert Scott has

26 Aitkin, D. and Mitchell, J. *The Diamond Database: One Hundred Innovations in Teaching and Learning at Victoria University*. Victoria University: Melbourne, December 2008. See http://tls.vu.edu.au/portal/diamonddb/Diamond_Database3_12_08.pdf.

27 Skills Australia, page 63.

28 Skills Australia, page 62.

29 Ibid, page 62.

30 Mark Brimble and Brett Freudenberg, "Will WIL'ing Work?", *B-HERT news: The newsletter of the Business/Higher Education Round Table*, April 2010, page 3.

outlined, institutional and educational change requires the development of new skills because “when a decision is made to change all or part of an education program, those who deliver these changes will be faced with having to do something new. Each of these new practices identifies a capability gap that the practitioners must learn”.³¹

Scott also suggests that effective change management in higher education needs to focus on motivation for change.³² This was potentially a shortcoming of the implementation of the VU LiWC project, which probably did not adequately scope what was needed to support academics and teachers to embrace LiWC. There was instead an unspoken assumption in the project planning that teaching staff would willingly take up LiWC, even if it was not traditionally a part of their discipline.

Implementing VU’s LiWC policy also brought about a change to some established WIL programs in operation in the university. The fact that the policy focuses on assessment has led to the need for change in the curriculum to explicitly assess LiWC, and to think about the best ways to do this. While many areas of the university had long established LiWC programs, not all of these had a strong focus on the assessment of these activities. Assessment which develops student skills in critical reflection and self-directed learning and encourages the integration of theoretical and practical knowledge will maximise the benefit that students gain from their LiWC activities. As the WIL report noted, this is not just a matter of adopting a one-size-fits-all approach to assessment, but requires assessment approaches which are “constructively aligned with WIL learning experience as well as the professional program in which it is situated”.³³ Capacity building amongst our staff to be confident in developing and delivering LiWC assessment that fits their students and their disciplines, and being creative about the types of assessment they set has been, and remains, a challenge.

There have also been a number of resourcing challenges in meeting demand for teaching and learning support, as VU’s central learning and teaching support area has undergone significant change over the two years of the LiWC project. This has significantly affected the organisation’s ability to provide sufficient levels of professional development needed to assist staff, especially in relation to key skills like designing learning and assessment strategies for LiWC.

The success of LiWC is also intertwined with other teaching and learning policies, initiatives and strategies implemented at VU, in particular the *Graduate Capabilities Policy*, but also the *Student Experience Strategy*, and *Internationalising the Curriculum strategy*. The combined effect of these teaching and learning strategies is also to shape a new role for teachers, requiring a broader understanding of their ‘whole course’ and the student experience throughout the journey.

These broader issues are part of the university climate in which LiWC must be implemented. While a cultural change expert could not have foreseen all of the issues which arose, they might have been able to ensure that the project team could put in place more effective strategies for alleviating staff concerns and building staff engagement.

LiWC and the impact on course teams

The intention of the LiWC policy is for LiWC to be embedded and scaffolded throughout a course, rather than just be ‘bolted on’. This requires a need for considerable effort in course design and thinking through the structure of a course. Such a policy requires the active engagement of course teams to make sure that LiWC is present throughout the course and integrated with discipline specific content and makes sense from the student’s point of view. The whole-of- course approach places an onus on course teams to work together, which has proved to be an issue throughout the implementation of the project. Without considerable redesign of a course to provide substantial and

31 Geoff Scott, “Effective Change Management in Higher Education”, *Educause Review*, November/December 2003, page 72.

32 Ibid.

33 Ibid, page 42.

significant LiWC there is a danger that students will undertake a series of small and perhaps repetitive range of LiWC activities, which overwhelm, rather than enhance, the student experience. This has been a consequence in some areas, as some course teams did not map out in a detailed fashion the way that LiWC will be structured throughout the course and the activities that students will undertake at different stages of their learning. Plans for the revised LiWC policy will place a greater emphasis on the development of significant LiWC experiences which offer students substantial opportunities to engage with industry and community.

Resourcing challenges

Resourcing WIL is of course a significant challenge for all institutions, as recognised by the 2009 WIL report: “As student numbers increase and more disciplines engage in WIL, the need for additional resources to support staff and provide quality placements is apparent...”.³⁴ The VU LiWC Costing Project undertaken during late 2008 and 2009, aimed to cost VU’s most commonly used LiWC models and to gain an understanding of university wide costs associated with supporting and implementing LiWC. This project, like many similar efforts to identify LiWC activities and their funding implications (Flinders University audits 1999 and 2007) and the HEFCE report, clearly showed that the majority of LiWC approaches are more resource intensive than conventional delivery.³⁵ The HEFCE study noted that whilst some of the extra resourcing and staff time required for WIL is recognised in the workload allocation systems, generally the extra effort is invisible to central management and costing systems.³⁶

Challenges that remain – evaluation

As Cooper, Orrell and Bowden write, “evaluation is often overlooked in work integrated learning”, and they further suggest that evaluation that does exist is generally too reliant on student feedback alone, and that the information which is gathered is then underutilised by universities.³⁷

VU is moving to develop a framework to evaluate the outcomes and impact of embedding LiWC across the university. It is envisaged that this will provide a reference point for the future evaluation of the LiWC program institution-wide, including the collection of appropriate data, as well as future research into specific aspects of LiWC as it related to VU, to students, and to host organisations. The development of a conceptual model has provided a framework for organising the numerous variables that impact of LiWC outcomes, with the aim of measuring outcomes in terms of retention, destinations, satisfaction and achievement.

One of the significant remaining challenges, that is particularly important for VU’s educational approach and for its cohort of students, is to closely examine and understand the contribution that LiWC can make to a social inclusion agenda in education. Brimble and Freudenberg suggest a clear link between widening participation in education and work-integrated learning initiatives:

Interestingly, notions of self-confidence, skills and employability vis-à-vis higher education, also lend themselves to the social inclusive agenda that has emerged from the Bradley Report. This suggests that WIL may also be a key tool to engage a broader cross section of the population in higher education including first generation students, those from lower socio-economic backgrounds and mature entrants/career changers – further evidence of relevance of WIL to building a more productive

34 Patrick et al. (2009, January). *The WIL Report*, page 35.

35 JM Consulting, “The costs of alternative modes of delivery: A study for HEFCE by JM consulting Ltd”, August 2003.

36 Ibid, page 2.

37 Cooper, Orrell, Bowden, page 35.

workforce of the future. This issue is now more acute given the Federal Government push to increase the availability of university education.³⁸

The 2009 report of the AUSSE survey also provides evidence of the importance of WIL and other student engagement strategies to the success of students from non-traditional backgrounds in higher education. The AUSSE outlines that students from low socioeconomic status and other disadvantaged backgrounds do “almost as well” as students from middle and high socioeconomic status backgrounds “in terms of retention, success and course completion”.³⁹ The AUSSE reports, however, that there is a direct relationship between socioeconomic status and overall grades, with “students from higher socioeconomic status backgrounds report higher overall grades”. This is a small but significant effect – “students from middle socioeconomic status groups have only a 0.7 higher overall grade than students from a low socioeconomic status background”.⁴⁰ These effects are lessened by three activities which enhance student engagement, namely academic challenge, a supportive learning environment, and work integrated learning. Low socioeconomic status students reported in the AUSSE survey more frequent blending of academic learning with workplace experience. Low socioeconomic status students with these experiences have “a slightly increased overall grade”, which helps mitigate the effects of socioeconomic status on student achievement.

Conclusion

One of the most important lessons of VU’s journey to embedding institution-wide LiWC has involved learning about the nature of change in an educational institution through the implementation of a far-reaching change project. Scott writes that one of the key change lessons is that “change is not an event but is a complex and subjective learning/unlearning process for all concerned”.⁴¹ Another key change lesson that Scott identifies which seems to fit well with the VU experience is that “the process of change is cyclical, not linear” where a team engages “in an ongoing and rising spiral of design, implementation, tracking and redesign of the desired improvement or innovation”.⁴² VU is moving forward with university-wide implementation of LiWC in all of its courses. The journey so far has been rewarding and challenging. Reflecting and learning from what has happened increasingly informs the next steps and also builds organisational knowledge and experience of whole-of-organisational change.

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38 Mark Brimble and Brett Freudenberg, “Will WIL’ing Work?”, *B-HERT news: The newsletter of the Business/Higher Education Round Table*, April 2010, page 2.

39 Australasian Survey of Student Engagement, *Australasian Student Engagement Report – Doing More for Learning: Enhancing Engagement and Outcomes*, 2010, Australian Council for Educational Research, Camberwell, Victoria, page 50.

40 Ibid, page 55.

41 Scott, page 73.

42 Scott, page 74.

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Costing Learning in the Workplace and Community at Victoria University: the outcomes and challenges

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The Making VU Program was established in 2007 with the aim of setting and supporting VU's course towards its future strategy. This program has been delivered through five project streams, one of which is the integration of Learning in the Workplace and Community, or LiWC (VU's term for work-integrated learning) into all courses at the University. VU is committed to embedding LiWC, with a clear focus on enhancing the job readiness of students through engagement with industry and community.

The implementation of LiWC represents a major organisational change and has broad implications from creating or redesigning systems and process, changing learning and assessment strategies to different cost structures. In order to fully appreciate the impact of the LiWC initiative on the university, it was imperative to scope the cost implications.

Most institutions don't know what work-integrated learning (WIL) costs. In an environment of budgetary constraints and a move to more flexible approaches to WIL, the need to clarify the relative costs of different models is a vital aspect of implementing WIL programs.

This paper will outline the VU LiWC Costing Project methodology, and the processes and modelling undertaken to cost LiWC for Schools, Faculties and associated centralised functional areas. The paper considers the issues and challenges of costing the implementation of institution-wide LiWC and reflects on the outcomes and impact of such a major organisational change project.

The paper will provide an overview of the complex pedagogical challenges underpinning the required shift in curriculum design to embed LiWC and also outline the ongoing resource and funding challenges that continue to require attention for the institution. The project consultants will provide a discussion of this challenging major organisational change project and their supporting role in driving the LiWC initiative and acting as change agents.

The paper will outline how the process of costing WIL can inform the cultural change needed to fully implement a WIL strategy. In university environments characterised by constrained budgets, explicitly calculating costs can provide important information about the level, and nature, of funding required to implement WIL, and consider the implications of different approaches to WIL. As well as the importance of accurately costing WIL initiatives, the paper will consider the role that a costing project can play in strategic planning, implementing WIL, the balance between central and faculty-based management of WIL, and opportunities to streamline processes.

Keywords: organisational change, organisational culture, financial modelling, costing learning in the workplace and community

Introduction

Victoria University (VU) is committed to embedding Learning in the Workplace and Community (LiWC) - VU's term for work-integrated learning - in its core learning and teaching philosophy, with a clear focus on enhancing the job readiness of students through interactive and meaningful engagement with industry and community.

The implementation of LiWC represents a major organisational change and has broad implications from creating or redesigning systems and processes, changing learning and assessment strategies to

adopting different cost structures. In order to appreciate the impact of the LiWC initiative on the University, it was imperative to scope the cost implications of making LiWC a universal feature of all VU courses. In an environment of budgetary constraints and a move to more flexible approaches to WIL, the need to clarify the relative costs of different models is a vital aspect of implementing WIL programs.

This paper will outline the VU LiWC Costing Project undertaken in late 2008 and 2009, and cover the processes and modelling undertaken to cost LiWC for Schools, Faculties and associated centralised functional areas that service the University. The paper also explores the issues and challenges of costing the implementation of institution-wide LiWC and reflects on the outcomes and impact of such a major organisational change project.

Victoria University Context

Victoria University (VU) is a multi-sector University with over 45,000 students, including more than 6,000 international students, which offers over 700 courses in Higher Education (HE), Vocational Education (VE) and Further Education (FE). VU courses range from non award short courses, certificate levels, diplomas and associate degrees through to undergraduate and postgraduate studies, and are offered across 11 domestic campuses predominantly in Melbourne's west as well as offshore (VU, 2010).

VU's agenda to develop the capabilities of individuals, enterprises and communities within the western Melbourne region and beyond, culminated in a decision by the University Council in October 2006 to embark on a significant change program aimed at making VU a responsive and engaged university towards its medium and long term strategic plan as outlined in the VU's Statement of Purpose 2016. The transformational change program entitled *Making VU: A New School of Thought* (Making VU) intended to secure the University's future as a distinctive institution designed to unlock student potential, meet future industry and community needs and contribute to Melbourne's west (VU Statement of Purpose, 2008).

The ambitious strategic initiatives of the Making VU program were implemented via a program methodology, consisting of five teams working collaboratively both within the Making VU team and with stakeholders in and outside of the University. The Making VU program was guided by five key Commitments:

Commitment 1: Collaboration

Align VU's 11 industry and community clusters more effectively with future needs, with input from prominent industry and community leaders.

Commitment 2: Career

Achieve at least 25% of every VU course assessment as learning in the workplace and community.

Commitment 3: Choices

Provide students with informed advice and support that will lead to successful completion of courses and allow choices to best meet their future needs.

Commitment 4: Connected

Reshape vocational and workplace education for the greater benefit of students and for connecting enterprises with workforce development services required to upskill and re-skill existing workers.

Commitment 5: Community

Develop and resource three major initiatives for a better life in Melbourne's western suburbs and share this knowledge with other communities. These projects include improving participation in post-secondary education, reducing incidence and impact of diabetes and creating a national centre of excellence in sport and exercise.

Commitment 2: Career aims to make LiWC a universal feature of VU courses. LiWC is an umbrella term that encompasses the many models and integrated approaches to teaching, learning and assessment that involve learning in and through the workplace and community. These LiWC models and approaches include projects in a workplace or community setting, practical placements, co-operative and clinical placements, fieldwork, simulated learning environments, apprenticeships, traineeships or internships and other work-based initiatives.

Learning in the Workplace and Community at Victoria University

McLennan and Keating (2008) considered a range of challenges and approaches in the mainstreaming of WIL across numerous universities. They note that many universities require WIL to be both embedded within a course and to be assessed and therefore accredited. VU's approach to extending LiWC in all fields of education requires LiWC to be an assessable component of the course. This is based on the assumption that unless these activities are explicitly assessed and students reflect on their experience then it is not clear whether the intended learning has occurred, (McLennan, 2008). Underpinning and driving this VU strategic initiative is VU's LiWC Policy which states:

The University is committed to making a minimum of 25% of course assessment apply to learning in the workplace and community activities as a proportion of the total course assessment. To this end, all courses will embed LiWC learning and assessment activities as an integral part of the educational process. The staging of LiWC assessment across a course and the overall time devoted to learning in the workplace and/or community activities will vary greatly depending upon choice of models, professional accreditation and industry-based certification requirements and regulations.

This ambitious target of embedding LiWC within all courses initiated a comprehensive internal scoping of the current level of LiWC activity within VU and the resources required to bring the policy into full effect. VU, like many institutions, did not have a clear view at an institutional level of what resources were currently being devoted to LiWC, the resources required to expand the initiative across the whole university and what it would all cost. The HEFCE study in the UK⁴³ noted that whilst some of the extra resourcing and staff time required for WIL is recognised in the workload allocation systems, generally the extra effort is invisible to central management and costing systems. In a similar vein to the Smigiel, H., Harris, J. (2008) Flinders University audits⁴⁴ and the HEFCE study, VU sought to gain a more informed picture of LiWC in VU and engaged specialist consultants to support the LiWC Costing Project.

Broader Context – Work-Integrated Learning

Skills Australia's recent Australian Workforce Futures paper (2010, p63) suggests that education and training providers need to redesign their business models away from the traditional institutional provision of standardised courses, 'teacher-centred' and classroom-based face-to-face delivery of education and training and expand to WIL to increase the relevance of the learning experience. It is broadly understood that work integrated learning enriches student learning through practice and greater connections between theoretical knowledge and practical application in workplace and community contexts. The tertiary sector as a whole is placing an increasing focus on producing work-ready graduates and the majority of universities in Australia are increasing their adoption of and involvement in WIL. Implementing quality WIL practices into courses requires a systematic and strategic approach to embedding systems, processes, resources and infrastructure to support and

43 The costs of alternative modes of delivery: A study for HEFCE p2 (2003)

44 Smigiel, H., Harris, J. (2008) Flinders University Audits - Experiential Work-based Learning (1999) and Audit of WIL Programs (2007)

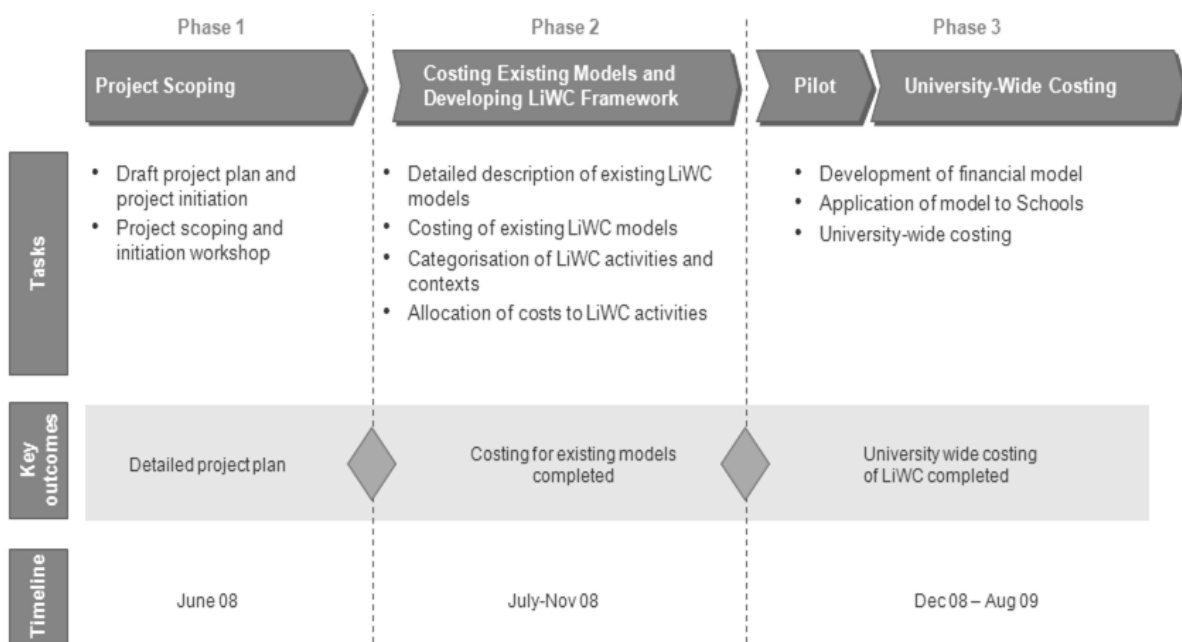
sustain WIL activities. Numerous reports including Patrick et al. (2009) *The WIL Report* and Cooper, Orrell, Bowden, (2010, p22) highlight the challenge of funding and resourcing the numerous components required to implement and sustain WIL. One only need examine the traditional WIL disciplines such as nursing, education, hospitality and engineering to understand some of the processes and support required to do WIL well.

Stage 1: LiWC Costing Project Methodology/Scoping

The VU LiWC Costing Project aimed to comprehensively identify and properly cost the processes, systems and support infrastructure VU needed to consider in order to implement the university-wide LiWC initiative over three years. The project scope did not extend to costing the actual and potential financial impact on industry and community partners, or students involved in LiWC activities. The project scoping and implementation phases were developed in consultation with staff across the University and strongly supported by senior management.

This project was undertaken in three phases. Phase I was the initial project scoping phase and resulted in a detailed project plan with costing objectives, methodology, key deliverables and a timeline. Phase II focused on the costing of existing and commonly used LiWC models and the development of a LiWC framework. Phase III involved a University-wide costing exercise, covering all academic and supporting areas. An overview of the project plan is illustrated in Table 1- Project Structure below.

Table 1: Project Structure



From the outset it was acknowledged that in order to make informed decisions to support the ongoing implementation of LiWC, VU required detailed information on the one-off and incremental costs associated with the LiWC initiative. With the goal of having LiWC fully embedded in all courses by end of 2011, it was expected that there would be significant one-off funding required with some additional ongoing costs.

Stage 2: Costing Existing LiWC Models

To facilitate this process phase II focused on the analysis and costing of LiWC models across 12 courses in HE and VE/FE sectors. The selection of LiWC models and the courses to be examined represented a broad cross-section of existing LiWC activities at varying levels of development and engagement. For example the cooperative education model within the Business Faculty has been in existence for decades, whereas the industry and community projects model within VE courses are relatively new. The models, as defined in VU LiWC Operational Guidelines (2008), include:

LiWC Model	Description
Project in, for or through a workplace	Students undertake a project in or for a workplace. This may be defined in collaboration with the workplace.
Community projects	Students undertake a project in or for a community-based enterprise.
Practicum or placement	Students gain practical experience in a workplace usually with a view to entering a specific practice area
Apprenticeship or traineeship	Students combine work in an organisation with structured training in an accredited course as a preparation for employment in their field of practice
Co-operative education or internship	Students are in a workplace to gain experience as workers within a specific area of practice (can be paid or unpaid)
Simulated environment	Students may learn and be assessed in a range of simulated learning environments. This is defined as an environment that closely resembles the real workplace in its function and operation and provides access to a broad range of work related experiences. In order to qualify as a LiWC activity, the simulation must also be supported by industry or community representatives.

These LiWC models and their related costs were analysed using information on what, how and by whom LiWC activities were structured, managed and assessed. As illustrated in the WIL Workload and Teaching and Service Categories⁴⁵ in Patrick et al. (2009) *The WIL Report*, there are numerous teaching and learning activities that are unique to WIL. University resources involved in these distinct LiWC activities which reflect the broader LiWC process were then determined and costed. Each of the LiWC models were analysed using a framework that included:

- a brief description of the particular LiWC activity;
- the context of the activity within the broader course;
- details about the assessment of the LiWC activity; and
- the key challenges, risks and opportunities of the LiWC model used.

Finally, a detailed process of the LiWC activity was mapped and estimated time allocations were provided against the activities – see Table 2-LiWC Analysis Framework.

⁴⁵ Griffith Survey (Engaging Students in the Workplace Working Party, 2006, December) – Patrick et al. (2009) *The WIL report*, p91,93

Table 2: LiWC Analysis Framework

	Build Partner Relationships	Organise LiWC Activity/Placement	Briefing/Preparation Partner	Briefing/Preparation Student	LiWC Activity	LiWC Supervision	Reflection & Debriefing	LiWC Assessment	Evaluation & Feedback
Academic Staff (Contact)			Introduction E-Mail to charity	Project brief at beginning of semester (in class)	Theory sessions and attending events (mainly in class time)	Supervision and coaching of groups	Assessment of report, preparation, presentation etc. Feedback (Reflection/Debriefing)		
Hours									
Costs									
Partner					Charity representatives attend conference (Hand over cheque)				
Hours									
Costs									
Student	Identify and liaise with charity (after project brief)			Project brief at beginning of semester (in class)	Plan project in groups, fundraising events, final presentation				Individual feedback form
Hours									
Costs									
Admin Staff									
Hours									
Costs									
Other Resources					Computer lab 2hr/week				
Hours									
Costs									

As expected, costing the LiWC models in the 12 case studies identified a broad range of costs and variables both between different LiWC models and where similar models were used in different courses and schools. For example, placing a business student into a cooperative education program in industry has different costs to those involved in placing a nursing student in a hospital, although both approaches have similar LiWC activities. The analysis of these costing data reconfirmed a key finding of HEFCE study (2003, p89) conducted in the UK, that the placement model would be a high cost model as it has a number of variables which impact significantly on the implementing costs, such as additional hours working with students and workplace supervisors and/or travel. The case study analysis stage also provided information on how lower costs and synergies could be achieved for some LiWC models, by allocating tasks to different staff members and stakeholders.

Stage 3: University-wide Costing

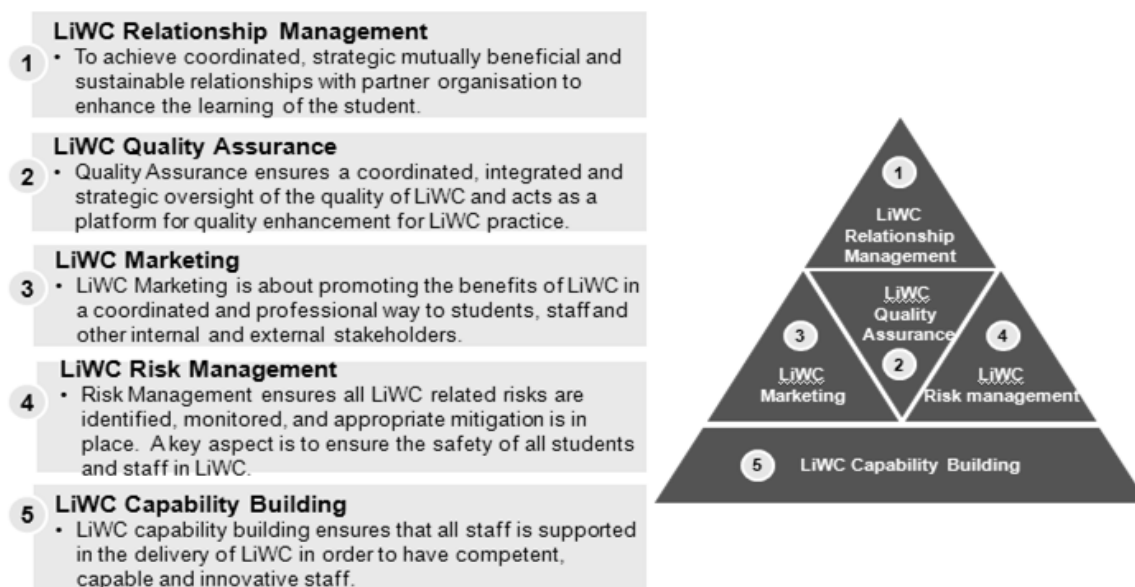
The third phase of the project embarked on determining costs incurred by individual Schools, shared across Faculties, and University-wide support areas (for example legal and compliance services, marketing, educational development support) in the implementation and support of LiWC activities. Given the scale, complexity and criticality to the overall success of the project a pilot was established to cost LiWC information for five Schools and to test the approach and templates to ensure that the data collection process across the University was going to be efficient and adequate. The three templates that were developed to capture data included:

- LiWC Current Status: to identify the current status of the proportion of LiWC assessment in each course, as a percentage of the overall course assessment;

- LiWC Costing Information: to identify current costs associated with LiWC activities for each course, any required additional one-off costs in order to achieve the LiWC target over the 2009-2011 transition period, and ongoing incremental costs beyond 2011; and
- Shared Services and Support: to identify and quantify costs of resources provided by centralised functional and/or corporate areas within the University to LiWC support.

Feedback received during the pilot phase included the need to improve the templates and for information packs to be developed to assist staff in understanding and calculating LiWC related costs. Other feedback provided greater clarity around the grouping of Shared Services (see figure 1) and the possible impact of increased demand for their services as a result of LiWC implementation across the University. With improved templates and a process for data collection, which included meeting with every Head of School and dedicated workshops, the project team worked with a range of staff to collect the required data.

Figure 1: LiWC Shared Services



Five Shared Services areas were identified as being critical to support LiWC activities: relationship management, marketing, quality assurance, risk management and staff capability building. During several working group sessions the roles and responsibilities for these shared services were defined and high level LiWC Shared Services Maps were developed. Those departments, centres and service areas responsible for high level support of LiWC then costed the expected additional resources they would need to put in place.

Findings, Issues and Challenges

The LiWC Costing project was the first LiWC project of this type and size undertaken at VU to address resources specifically related to LiWC at an institutional level. In total, there were more than 100 meetings and workshops conducted by the project team, with course schools and relevant departments. The project team found that whilst 51% of courses had already complied with the University's LiWC policy and met the requirement of having minimum 25% LiWC by assessment, a significant LiWC related budget over the 2009-2011 transition period would be required in order to meet the 100% compliance target.

Other findings indicated that University-wide coordination will be required to support LiWC via: centralised activities such as course review and approval;

- resource development and compliance support including LiWC tools, legal, insurance, evaluation arrangements, database systems;
- professional development and staff capability building; and
- appropriate systems and processes (e.g. communication, risk management, relationship management, student engagement), infrastructure and structures.

The project team encountered a number of challenges along the way, some of which partly reflected the complexity of LiWC costing itself and the great number of stakeholders involved. Other challenges were underpinned by limited collaboration amongst course teams and the siloed approach to review and redesign of units of study.

Challenge 1: Low cost awareness amongst University staff

In some cases the cost information provided to the project team was not of high quality. Academic, finance and administrative managers had limited understanding of the activities and costs associated with teaching conventional courses, and therefore even less understanding of courses blended with LiWC activities. Cooper, Orrell, Bowden, (2010, p184) suggest that any new WIL programme needs infrastructure, resourcing and a budget. Resourcing the programme remains a task specific to each professional or disciplinary domain, therefore requiring an understanding of setting realistic budgets. As expected there was a lot of 'rough estimation', especially where course teams were asked what resources they think they needed in the next two years to implement LiWC as there was no systematic approach to accounting for these costs. In most areas, considerable thought had not yet been given to the range of LiWC models, scaffolded across a course that could possibly be implemented to maximise and enhance student learning, therefore estimating costs for these activities was complicated.

Challenge 2: Lack of collaboration from some areas and key individuals

The LiWC team underestimated the significant organisational change required for this whole-of-University initiative. It was evident that many frontline academics and their managers were not clear about what University's LiWC initiatives meant for them and how they could actively contribute towards these initiatives. This, in some instances, was a consequence of a lack of collaboration of key individuals who were responsible for disseminating messages around the aim and requirements of the project, and provided/coordinated relevant support throughout the costing process.

Challenge 3: Staff capability of transforming pedagogy

Like all WIL approaches, VU's integrated approach to embedding LiWC into courses, designed to bring about a strong connection between theoretical and practical knowledge, has prompted the need for the re-design of many learning and assessment strategies, and in some cases a re-design of the whole course. While the focus of the LiWC Costing project was not specifically on LiWC pedagogy, issues around this appeared to be common during consultation with academic and teaching staff. It was evident that some staff had not yet engaged with the LiWC initiative sufficiently in order for them to embed LiWC into the curricular, particularly in the discipline areas where LiWC was not traditionally applied. Numerous requests for professional development focussed on designing LiWC learning and assessment strategies, indicated to the project team that the possible underpinning reason why LiWC uptake was slower than expected was more likely due to insufficient staff capability than a reticence to embrace LiWC. McLennan noted in 2008 that a major challenge for VU staff is to gain a more complete conception of LiWC in order to accommodate the changes it demands. The building of staff capability in the implementation of LiWC in discipline areas remains an ongoing process that will continue to present challenges in this complex initiative. The costing project identified that a significant investment in the ongoing LiWC professional development for all staff is vital.

Challenge 4: Culture shift and getting buy-in

Many VU courses are required to comply with specific professional or industry standards in order for graduates to be able to work/practice in particular professional fields. As a result, many VU courses already had LiWC embedded and met the University's LiWC requirement. However, for some areas more effort was required to achieve the set LiWC target and encourage staff to engage with the whole LiWC initiative. Common staff concerns raised included, how to 'fit more into an already crowded curriculum', 'where do we find more placements?' and a hesitation towards changing existing learning and assessment practices. Getting buy-in from some staff has been a major, ongoing challenge.

Reflection

The findings from the costing project clearly indicate that significant funding is required to further implement and support LiWC activities throughout the University. As expected, the level of additional costs would vary by sector, discipline, the type of the student cohort and the nature of the course itself and the School's specific teaching requirements. Coupled with this is the need to establish quality pedagogical approaches that provide a high degree of learning support for students, and support for those host organisations that engage with the University in LiWC activities.

The LiWC Costing project provided numerous opportunities for conversations around identifying and costing LiWC activities. These conversations contributed to an increased awareness of LiWC and broader teaching related costs and explored ways to embed LiWC more effectively. One of the key messages the project team reinforced was that LiWC would need, over time in its constantly evolving form, to replace some other modes of delivery and assessment instead of being an additional activity. One issue that became quite evident was that many staff had not read or possibly understood the specifics of the LiWC Policy, so in effect, the costing project conversations were largely LiWC information sessions.

Underpinning the pedagogical implications of LiWC implementation and success is the recognition that significant changes to curriculum and assessment are required. The HEFCE study (2003, p3) identified the importance and effort in professional development and advice as a necessity to achieve this goal. The LiWC Costing Project indirectly became a vehicle through which professional development of staff occurred. The costing team became quite adamant that we would meet with course teams, not endless meetings with single educators who taught in the same course. This provided opportunities to explain LiWC approaches and more importantly, get course teams to look at what LiWC learning and assessment currently being offered and how these are scaffolded across the courses.

The LiWC Costing project and the broader LiWC initiative needed greater middle management support in driving the process, particularly in the early stages. The top-down and bottom-up push for LiWC seem to taper off in the middle. It became quite evident that clearer accountability and reporting structures for key personnel is needed to ensure proper and interactive engagement, both horizontally and vertically within the University. Substantial investment in standardised systems and processes, as well as staff capability building and development should be made to ensure quality LiWC data is collected and evaluated to ensure continuous development.

Conclusion

The LiWC Costing Project was one of many LiWC projects aimed at supporting LiWC implementation across the University. The project was not only a mechanism for checking progress on LiWC implementation and determining LiWC related costs, but a key enabler to better understand the processes and resources required to actualise a major organisational change program. Although faced with many challenges and challengers, the project achieved many unexpected and positive outcomes. The numerous LiWC conversations about costing LiWC became a vehicle for professional development, and encouraged course teams to work collaboratively towards embedding LiWC in their courses and also to consider a range of innovative LiWC models. The project also identified the challenges staff face in determining costs associated with LiWC approaches and brought to light the importance of building staff capability to transform pedagogy.

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Assurance of learning: The role of work integrated learning and industry partners

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In the partnering with students and industry it is important for universities to recognize and value the nature of knowledge and learning that emanates from work integrated learning experiences is different to formal university based learning. Learning is not a by-product of work rather learning is fundamental to engaging in work practice. Work integrated learning experiences provide unique opportunities for students to integrate theory and practice through the solving of real world problems. This paper reports findings to date of a project that sought to identify key issues and practices faced by academics, industry partners and students engaged in the provision and experience of work integrated learning within an undergraduate creative industries program at a major metropolitan university. In this paper, those findings are focused on some of the particular qualities and issues related to the assessment of learning at and through the work integrated experience. The findings suggest that the assessment strategies needed to better value the knowledges and practices of the Creative Industries. The paper also makes recommendations about how industry partners might best contribute to the assessment of students' developing capabilities and to continuous reflection on courses and the assurance of learning agenda.

Keywords: Assessment, Learning Outcomes, Industry Partners, Work integrated Learning, Assurance of Learning.

Introduction

There is increasing pressure on Australian universities to provide direct evidence of their graduates' learning against agreed learning outcomes for the discipline and profession. In the past, the data that informed the Higher Education quality agenda relied heavily on the inputs such as Student Staff Ratios and on indirect evidence of output such as student feedback on course experience (e.g. CEQ). A New Higher Education Quality and Regulatory Framework is now being established to regulate the sector and the establishment of Tertiary Education & Quality Standards Agency (TEQSA) in 2011 will be a further step towards the assurance of learning outcomes for tertiary graduates. Currently the Australian Learning and Teaching Council (ALTC) is working with academic and professional communities to develop threshold learning outcomes (TLOs) for disciplines with the intention that this work will support universities to implement and assure graduates' attainment of learning outcomes. While statements of learning outcomes reinforce their importance in the curriculum their explicit development and assessment within university-based curriculum is often challenging and perceived as secondary to specific discipline studies (Costley and Arnsby, 2007:22). Students' engagement in work integrated learning (WIL) experiences, such as internships and industry-based projects, can support students' integrated learning (LEAP Report, 2007) across the breadth of learning outcomes. Student engagement in work settings also provides opportunities for them to evidence their developing capabilities both through their real world work products and processes. These capabilities include not only discipline-specific capabilities but also generic transferable capabilities such as interpersonal skills, communication skills and problem solving skills (Weisz & Smith, 2005:606).

As universities seek to engage with industry partners and the professions to increase WIL opportunities for students it is important that workplace practices and an understanding of learning at and through work strongly inform the development of WIL curriculum, pedagogy and associated assessment. It is only by establishing strong collaborative partnerships between universities, suitable

work organisations and students that WIL programs will be effective and sustainable in the longer term (Smith et al 2006).

This paper reports findings to date of a project that sought to identify the key issues and practices faced by academics, industry partners and students engaged in the provision and experience of work integrated learning within an undergraduate creative industries program at a major metropolitan University. In this paper, those findings are focused on some of the particular qualities and issues related to the assessment of learning at and through the WIL experience. The findings suggest that the existing WIL assessment strategies needed to better value student's work practices and products as evidence of their developing capabilities. The paper also makes recommendations about how our WIL industry partners might best contribute to the assessment of students' developing capabilities and to continuous reflection on courses and the assurance of learning agenda.

Conceptualising Work Integrated Learning

Broadly work integrated learning is defined as “an umbrella term for a range of approaches and strategies that integrate theory with practice of work within a purposefully designed curriculum” (Patrick et al., 2008:9). Within this definition work integrated learning encompasses a range of on-campus and workplace learning experiences including project-based learning, service learning, work placements and internships. More specifically Work integrated learning (WIL) is described as “a class of university programs that bring together universities and work organizations to create new learning opportunities in workplaces” (Boud, Solomon & Symes, 2001: 4). Increasingly work-based WIL activities, like internships, service learning and projects, are being identified by the Higher Education sector as some of the high-impact, effective educational practices that can make important contributions to preparing graduates for a future of “daunting complexity” and “relentless change”(LEAP Report, 2007: 13). By providing real world contexts and problems, WIL experiences require students to integrate theory and practice (Weisz & Smith, 2005; Boud, Solomon & Symes, 2001) and to consider not only “how to get this done but also what is most worth doing” (LEAP Report, 2007: 13).

In the partnering with students and industry it is important for universities to recognize and value the nature of knowledge and learning that emanates from WIL experiences is different to formal university based learning. Learning is not a by-product of work rather learning is fundamental to engaging in work practice. Work integrated learning experiences provide unique opportunities for students to integrate theory and practice through the solving of real world problems. (Patrick et al, 2008; Weisz & Smith, 2005; Boud, Solomon & Symes, 2001) Huber and Hutching (2004) recognize that our rapidly changing and ever-more-connected world is challenging the integrative abilities of experts and students alike and argue students need to be able to:

Integrate and connect skills and knowledge from multiple sources and experiences; apply theory to practice in various settings; utilize diverse and even contradictory points of view; and, understand issues and positions contextually.

The holistic and integrated nature of the WIL experience, which often challenges students to think outside their discipline knowledges, means, “students need to recognize knowledge presented in unfamiliar ways and to develop the skills of meta-cognition in order to recognize and learn from the knowledge and experiences encountered” (Brodie & Irving, 2007:12). By reflecting in and on their WIL experiences individual students are engaged in a process of personal meaning making. Reflection, if managed well, can help students build a deeper understanding of their integrated experiences in the workplace setting and see relevance to their course experience. This in turn informs their self direction as learners and their emerging identities as professionals (Brooks, Benton-Kupper & Slayton, 2004).

Learners as workers develop implicit tacit knowledge about their practice and surfacing this knowledge through reflection can add value to students WIL experiences. Mooradian (2005) describes tacit knowledge as the knowledge, which an individual will use subconsciously in order to make sense of a situation. Researchers have identified this knowledge is often difficult to recognize and articulate. While writers (Eraut, 2000; Mooradian, 2005) suggest that some tacit knowledge can be made explicit, they also indicate that other tacit knowledge might not lend itself to linguistic expression and recognize that something is lost in the conversion of tacit knowledge into explicit knowledge. Some tacit knowledge because of its intrinsic character is harder to articulate into a written or spoken form. Mooradian (2005: 110) suggests visual, auditory and bodily experiences and skills are examples of tacit knowledge, which is difficult to describe because “language abstracts from the particulars of experience, leaving out much of its information value and emotional impact”. This fundamental understanding of work as learning and knowledge, which emanates from practice, raises important questions about how we value and assess the learning outcomes in this rich, predictably messy learning environment of the workplace.

Assessing work integrated learning

Work integrated learning experiences like internships are highly situated in the workplace context and most of the learning is a “by-product of doing work” (Jackson, 2010: 20). In this context students’ personal development is difficult to articulate as it “often involves the development of qualities and dispositions as well as new discipline knowledge and skills” (Jackson, 2010:21).

In creative industries internships this personal development often involves embodied kinaesthetic, visual and auditory knowledges and practices. In their university studies, students heighten their artistic knowing and arts literacies as they learn to communicate through their creative industries practice. As these students are exposed to and participate with others in communities of practice (Lave & Wenger, 1991) of the workplace setting, they continue to construct, apply and challenge these knowledges. For students as creative practitioners, this embodied knowing and learning is expressed through their creative practice (Smith et al, 2005). The challenge is to design assessment that appropriately recognises and evidences both the discipline-specific knowledges and skills and generic skills such as reflective practice, problem solving, collaboration and communication. It is therefore important that WIL assessment strategies take into account the discipline and context specific environments of students’ workplace experiences.

Brodie & Irving (2007:17) recognize the assessment of students’ capabilities in WIL raises significant issues. Firstly, if capabilities evidenced in the workplace context are to be assessed the question arises: Who should be undertaking the assessment? (The student, the employer or a higher education observer). Secondly, if the employers do contribute to assessment then issues of equity, standardization and quality assurance need to be considered. Thirdly if students’ written evidence articulating how they are capable is used then their ability to write could influence the outcome. Brodie & Irving (2007:17) suggest, “this variable compromises the validity and integrity of the assessment of practical capability”. Finally the issue of appropriately weighting for capability assessment is considered. They report (Brodie & Irving, 2007:17) that students in their institution frequently suggest that the employers’ contribution should be weighted more than the current 10% and saw this issue as an ongoing assessment issue for curriculum designers. Further to the issues raised by Brodie & Irving (2007), industry supervisors assessing the quality of students’ work can also provide important and valuable external perspectives on the quality of students’ work. Course coordinators and their course teams can also use these industry perspectives on the quality of students’ work to help identify strengths and gaps in course design and inform continuous reflection and accountability at the course level (Hundley, 2010).

WIL offers contextualised integrative learning experiences that when intentionally designed can help students to connect and reflect on developing skills to enrich their capacities as reflective practitioners

for their future work and lives. Schon (1991) refers to reflective practitioners using reflection in action as integral to their practice where reflection (thinking about what they are doing) works in conjunction with action informing and enriching their practice. In Schon's (1983: 61) seminal work on reflective practice, he suggests that reflections enables us to "surface and criticize the tacit understandings that have grown up around the repetitive experiences of a specialized practice, and can make new sense of...situations of uncertainty or uniqueness." Assessment methods like learning journals, reflective portfolios and learning circles if designed well can contribute to the students' recognizing and evidencing their developing capabilities as well as contributing to enhancing their reflective practice skills. A number of authors provide guidance about approaches to support students' reflections. Boud and Walker (1998) warn that "without a focus on conceptual frameworks, learning outcomes and implications, reflection for learners can become self-referential, inward looking and uncritical. They suggest "there is inevitably a tension between guidance which leads to the problem for recipe-following and a lack of structure which can lead to a loss of focus". (Boud & Walker, 1998: 193). Boud & Walker (1998: 194) also warn "because emotions and feelings are often downplayed in educational settings, it is common for reflection to be treated as if it were an intellectual exercise – simple matter of thinking rigorously". Brodie & Irving (2007:15) suggest the reflective assessment strategies should provide students with "opportunities to focus on how they learn and, in requiring them to claim their achievement of learning outcomes through reflection and by evaluating feedback from a range of sources, involves self assessment of their learning goals". Reflective activities like reflective journal and portfolios can help students recognize their future learning needs, which contributes to their life-long learning skills (Boud, 2000 in Brodie & Irving, 2007). Other authors have identified the important social aspects of reflection. Boud et al. (1993) suggested the process of reflection on learning through discussion enables students to interrogate the basis of their knowledge. Billet (2009: 48) suggests discussion undertaken in reflected learning groups and learning circles can also provide opportunities to extend student learning. Jackson (2010:14) further suggests we "transfer and adapt learning through telling and listening to stories" and we therefore "need to become adept at telling the stories of our learning and good at recognizing learning in the stories". Reflective assessment tasks need to be carefully planned and structured with the challenges of reflective practice in mind and should be framed and situated by particular disciplinary and professional contexts.

WIL assessment design needs to both value the rich and diverse learning occurring in the workplace context and value add to this learning with experiences that enable students to deepen their learning and understanding of how they learning through reflection on their practice.

WIL in the Creative Industries: Background to the Internship program

The option to undertake an Internship is available to most final-year students in the Creative Industries Faculty. Internships are common forms of WIL that equate to students undertaking work place activities related to their tertiary programs over an extended period either intensively over a number of weeks or part time over longer periods. Students are able to commence their internships at any time through the year, to undertake intensive work with an organisation over a few weeks or an extended internship over a year. Over a year there can be up to 200 industry partners involved in supporting creative industries students on internships. Small-to-medium enterprises make up the majority of industry partners in this program. Students can take up internships within the Creative Industries sector and also with organisations outside the sector, particularly those organisations that seek to work with embedded creatives as a means of adding value to their organisation. Students are encouraged to approach prospective organisations with the aim of establishing their own internships. Additionally, the university advertises internship opportunities to students online and manages an application process for these advertised industry partners. This involves collating student internship applications for the industry partner to assess.

In the internship program, creative industries students undertook four assessment tasks. Initially students prepared for the internship by completing a CV and Cover letter and an internship proposal

(weighting 20%) that addressed among other things internship application and selection, the internship aims and objectives, Occupational Health and Safety requirements and other legal requirements. Ongoing through the internship, students kept an online reflective blog (formative), which they shared with their academic supervisor. At the end of their internship students used these structured reflections to write an academic essay, which encouraged them to surface their tacit understandings and make new sense of their internship experience. (Schon, 1983:61) This individual essay had until recently formed the main assessment task (70% of the overall mark) for the internship program. Finally an industry partners' evaluation of student's work made up 10% of the overall mark. In this evaluation industry partners provide feedback on the quality of students' work against a set of generic criteria and standards supplied by the university through a paper-based evaluation form. This suite of assessment is not dissimilar to many other internship program. What initial data from students was indicating was the assessment approach was not appropriately valuing the work as learning nor was it valuing the important contribution of the industry partners.

Researching stakeholder perspectives

To account for the diversity of perspectives influencing the partnerships that is the Creative Industries internship program the following research was undertaken. Industry partners' perspectives were sought through interviews with 20 industry partners who provided formal work based experience opportunities for internship students. The industry partners interviewed represent various business organisations, including for profit and not for profit organisations, and small to medium enterprises and larger organisations. Student interns who worked with these industry partners came from a range of disciplines in the creative industries including Dance, Drama, Creative Writing, Visual Arts, Music, Web and Interactive Design, Fashion, Creative Advertising, Journalism and Media Communications. Students' perspectives were sought through the analysis on qualitative data available through the unit evaluation surveys and 2 student focus groups. Interviews with 6 academics involved in the Transitions Program were also conducted to inform the research.

The interviews and focus groups were designed to elicit the perspectives of industry partners, students and academics on the internship experience with a view to informing the ongoing development of the Internship program. Data from these stakeholders was analysed to inform changes in work integrated learning program including the assessment design. Initially the stakeholders were asked to provide background information about their involvement in the internship program. This was followed by a series of open questions designed to make explicit their perspectives on the reasons for engaging in the internship, the internship program design and assessment, approaches to the implementation of the internship program and readiness for students to engage in the internship. The data was collected over twelve months and collated and analysed using open coding methods. The data presented here represents part of ongoing analysis. It offers some insight into stakeholders' (i) perspectives on assessment of the internship program and (ii) perspectives on the contribution of WIL partners to this assessment process. This research has led to a review of the assessment design for the program.

Stakeholder perceptions of Internship assessment design

There were a number of key themes emerged from the data in relation to the design of the assessment tasks. While stakeholders provided positive feedback on the relevance and usefulness of early assessment tasks and the industry partners' evaluation they also raised a number of issues with aspects of assessment design. Firstly the focus on the written academic essay emerged as a significant issue with stakeholders who called for more value to be placed on the workplace activities and the feedback provided from industry partners. Secondly, both students and academic supervisors saw the heavily weighted written academic essay having limited capacity to capture the rich learning that occurs in the aural, visual, tactical and kinesthetic disciplines of the Creative Industries. Thirdly the lack of

opportunities to reflect on and share workplace experiences with peers and academic supervisors also emerged as an issue for stakeholders.

When students were asked what most needed improving their comments most often focused on the assessment for the unit. Students questioned the heavy focus on academic writing and called for an increased assessment focus on the work placement activities. Students suggested they would prefer to be marked on what they have done in the placement, not how they 'can relate it to academic texts'. A student remarked the assessment "shouldn't be too academic" and suggested it be more reflective. Another student while recognizing the purpose for reflection and review felt that the journal tasks were sufficient and formal academic writing did not add value to the experience.

Although I understand the reasoning behind reflection and review it's not something I enjoy. Incorporating theory and academic referencing into a formal review document seems quite pointless to me as a lot of the theory is based around common sense. I covered most of it in my diary [journal] anyway.

Students criticized the emphasis on academic writing over the work undertaken and produced in the workplace setting. One student stated:

The report overlooks all of the hard work I have done over my placement. The report is a big research assignment that is weighted too heavily over the content I have produced as part of my placement.

Another student stated: "more of the mark should be from the evaluation you get from the actual work place". Similar to student comments, industry partners and academics also questioned the academic writing emphasis of the assessment in the context of the industry focused, practical experience of the internship. An academic supervisor suggested that the academic nature of this writing task seemed incongruent to the practical placement and was quite challenging for students:

Um I suppose for a lot of our students it's quite funny because they've just been through a really industry focused, practical placement and we suddenly ask them to analyse this in an academic way. Now I know we're a university and that's what we should be doing, but that's quite hard for them ...

An industry partner in calling for an increased input on the students' results commented:

Given that an internship is predominantly about tacit and experiential learning, it is important that the industry partner be given the opportunity to assess that and provide some leverage to the student's mark.

In expressing her concern about with minimal weighting on the Industry Partner Evaluation compared to the Written Reflective Report an industry partner further suggested students' capacity to operate in the work setting was not being valued within the assessment program and this in turn could skew students' results.

When the industry partner evaluation was weighted at 10% of the students grade, it bothered me that student's could too easily skew this....doing badly on the job but writing an excellent written review assessment therefore not really reflecting their internship performance. Similarly, this could be reversed and the student have performed exceptionally well in the internship but not be able to translate this well in written form, particularly in the visual arts discipline.

In contrast to these issues, most industry partners, who had supervisory responsibilities, reported that they felt comfortable evaluating their students against the stated criteria and indicated they were happy for students to receive a copy of the evaluation. Moreover, many indicated they also provided verbal feedback against the criteria at the mid internship feedback session and at the conclusion of the internship as well as informally throughout the internship. In a few cases, partners indicated they would like more space for written comments to make the necessarily generic criteria and standards more relevant to the internship activities. In contrast to this position, two industry supervisors who had limited supervisory experience of interns and work employees did indicate some nervousness about their role in assessing the intern's work. One industry partner who was a more junior staff member in discussing her awkwardness in evaluating her intern stated:

I felt a little bit umm, I guess awkward for marking people or umm... providing my evaluations of them directly to them because obviously like, I really liked both of our interns and they did do good work, but like I said they did have downfalls but I guess it's hard because I kind of become like part of the family so it's sort of hard to try and say these things you did well, but you didn't actually show these skills, yeah

Secondly, both students and academic supervisors indicated the final report is too broad for the diverse workplace contexts of the Creative Industries Internship Program suggesting there needed to be "more flexibility in the assessment depending what the placement entails". They identified the importance of valuing the practices of the discipline. An academic supervisor from a design discipline in considering the academic writing focus in the unit states: "I think there's a visual and tactile thing that could still be improved for that unit". Another academic from a performance discipline in referring to the written report states: "It was very generic and it is very difficult ... in the performance area. I think it needs to be twigged a bit in order to suit. Another academic suggested, "maybe the assessment could be different, depending on the majors that people are studying".

Thirdly, students and academics recognized the value of establishing learning spaces and dialogue to support students reflect on their own experiences and consider their experiences in the light of the experiences of their peers. One academic suggested:

I would really love a component of that final thing to actually be an oral presentation to the rest of the group, because I think there is such a quality of learning that just could be shared amongst the group, particularly those who have gone overseas.

Student comments reinforce the value of dialogue among peers to support students to make sense of their experience. One student suggested "maybe a debrief with other students and the supervisors would have helped with reflection". In questioning the relevance and value of the academic essay another student also suggested that dialogue with peers and academic would be better enable the sharing of views and the unpacking of perspectives:

I'd much prefer a relaxed round table discussion between academic supervisor and all discipline interns at the same time. That way a broader range of views and experiences could be exchanged, discussed and workshopped.

Additionally a student recommended debrief opportunity part the way through the internship hours:

Maybe there could have been some kind of debrief or social thing mid-way through – like some kind of lunch or social thing even for an hour – to meet people and talk about how it was going, and get ideas on how you could improve. That would be helpful.

These comments raise important questions about how best to value the work and learning in the workplace context and how best to add value to students' workplace learning experiences through the

assessment design. On the one hand students are looking to receive appropriate credit for the work undertaken on the internship. Industry partners, academics and students raised concerns that the work students engaged in as part of the internship was not being valued appropriately in the assessment design. On the other hand a number of students, academics and industry partners also recognize the benefits that stepping back and reflecting on the experience to make sense of the experience and bring to surface tacit knowledge (Mooradian, 2005: 110). These stakeholder perspectives also raise questions about the goals of assessments in the Work Integrated Learning context. These perspectives challenge universities to consider how best to partner with the workplace supervisors to support student learning and how to appropriately recognise the capabilities students develop and evidence in the workplace setting. These issues also highlight the need for criteria and standards that are: (1) developed and shared with stakeholders; (2) allow for variation across disciplines; and, (3) encourage comparability in the evaluation of students' internship work. Further if a goal of WIL assessment is to help students step back from their situated workplace learning experiences and through reflection make sense of these integrated and complex experiences (Bates, 2003: Boud et al, 1993) then these stakeholder perspectives raise a number of questions. Is the lone task of academic writing the best way to assist students make sense of their real world experience, to challenge their disciplinary understandings and make explicit informal learning strategies that will help them be effective learners through their lives? What are the best ways for universities to support and facilitate students' reflection on their experiences? And significantly, how can industry partners' expertise be best leverage through assessment?

Closing the Loop: WIL Stakeholder perspectives informing changes to assessment and evaluation practices

The research into WIL stakeholder perspectives has led to changes in the assessment design for the Creative Industries Internship program. It has also lead to a consideration of how we can better incorporate the industry partner feedback into the evaluation of curriculum quality and the assurance of student learning outcomes. Following is a discussion of assessment changes including the ways industry partners contribute to the assessment of students' internship work and ways students' reflect on their developing professional practice.

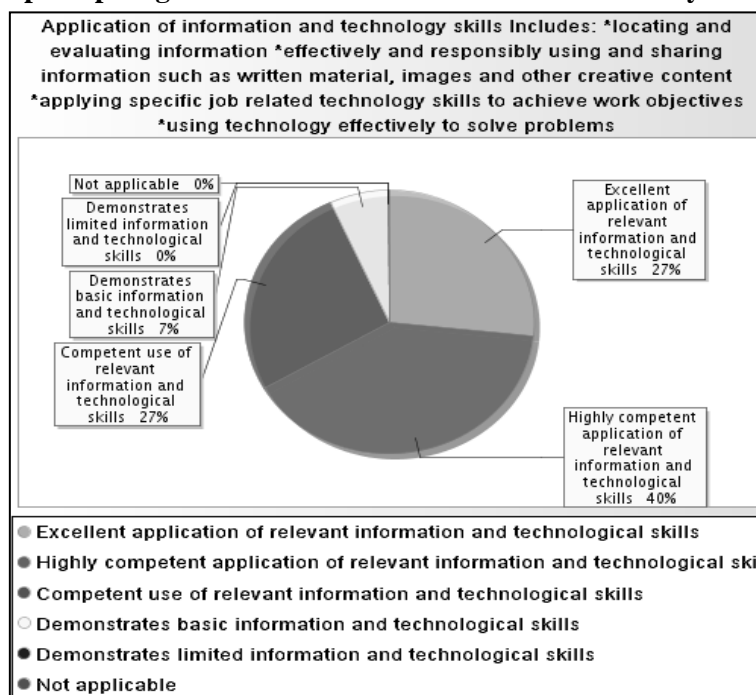
The major assessment task was changed to include an oral presentation and group discussion, which aims to facilitate reflective dialogue among interns, their peers and academic supervisors. While the original reflective report did encourage students to make explicit connections between their university studies and their learning in the workplace, it did not however enable students to benefit from sharing their reflection with others nor to build a deeper understanding of their experience in relation to others (Boud et al, 1993). Additionally the written focus of the report provided a challenge to students whose discipline knowledges and practices are embodied in other literacies such as visual and kinaesthetic (Brodie & Irving, 2007:17). Students are now required to share aspects of their internship experience with their peers and the academic supervisor, which can be accompanied by a display of portfolio materials produced during the internship. Students also have the option to invite industry partners to attend and assess the student's oral presentation and contribute to the discipline-based seminar discussion about working in their industry. Previously the academic reflective report was heavily weighted (70% of the overall marks). The revised oral/written reflection and portfolio has now been reduced to 50% of the overall weighting to enable more weighting to be allocated to the Industry Partner Evaluation. Students have also been provided with options on how they would like the oral presentation is weighted compared to the written component of the reflective assessment.

This research has also led to changes in the design and implementation of the Industry partner's evaluation of the intern's work. In response to feedback provided by both the industry partners and students, the Industry Partner Evaluation of the student's internship has been redesigned. Firstly, Industry Partner Evaluation has increased to 20% of the overall weighting. Secondly, the criteria and standard for assessment have been reworked to provide more focus and guidance for industry partners

and greater focus on the assessment of the students' application of discipline knowledge and skills. Thirdly the paper-based Industry Partner evaluation has been moved into an online survey tool. This online survey tool enables academic supervisors to review and moderate evaluations made across the program, which opens up opportunities for academic supervisors and industry supervisor to discuss the applications of standards.

The survey tool also enables reports to be generated that collate and graphically represent the Industry Partners' evaluations against Creative Industries academic standards. The evaluation has been set up to enable whole of faculty and discipline-level reports to be generated. The diagram below provides an example of the reports that can be generated. The reports collate the interns' performance against a broad set of identified graduate capabilities for the creative industries. These reports can help course coordinators and course teams to identify strengths and gaps in student learning outcomes to inform continuous reflection and accountability at the course level.

Figure 1: A sample report generated from one criteria on the Industry Partner Evaluation



Other strategies that engage external stakeholders in providing feedback on the quality of student learning outcomes and on courses, such as assessment panels and benchmarking activities, can often be selective, very resource-intensive and rely on a significant amount of goodwill from industry. Being able to harvest feedback from many industry partners involved in the provision of WIL is efficient, scalable and more inclusive. The issue that needs to be considered further is the quality and usefulness of this feedback. The first stage of implementation of the online evaluation identified two key limitations of the feedback. Firstly the lack of the specificity in the feedback limited the capacity to drill down to determine gaps in students' learning. While the evaluation data does provide industry perspectives on the students' achievement against capabilities, industry partners have not been asked to provide detailed feedback in relation to specific discipline-level skills and capabilities. Academic staff felt that where issues with achievement against the broad criteria were identified further investigation would be required. Secondly the qualitative feedback provided by industry partners tended to focus on the positive aspects of the interns' work, personal qualities and dispositions. While this feedback is encouraging for students it does not provide them with suggestions for improvement and continued personal development. With a focus on the positive aspects of the interns' work, the data also has limited usefulness in the process of course review. Planned changes to the online industry partner evaluation include incorporating guidance to industry partners on writing qualitative

feedback to students. The evaluation is being changed online to encourage industry partner to discuss areas for further development in the intern's work as well as areas of strength. This more specific qualitative feedback from industry partners will likely benefit both students and academic course teams. By analysing this more specific qualitative feedback, industry course teams will have readily access to external perspectives on how students are performing in real world settings. Additionally it is planned that the criteria and standards used in the evaluation will also be reviewed to align with Creative and Performing Arts (CAPA) discipline threshold outcomes, which are currently being developed through the Australian Learning and Teaching Council.

Conclusion

Assurance of learning is increasingly important business for universities and work integrated learning experiences can make a significant contribution to providing evidence of students' developing capabilities. The challenge to universities is to recognize these rich, complex real world contexts are not like the formal learning context of university and therefore require a reconsideration of assessment practices. WIL assessment design needs to not only value the critical embodied knowledges evidenced in students' work practices and products but also needs to consider ways assessment can add value to this situated learning experiences through enriching students' reflective and self-directed skills to manage their own learning. External feedback on WIL students' capacity to apply their knowledge and skills to workplace problems and challenges can also be valuable data for course teams. This research has also lead to a consideration of how we can better incorporate the industry partner feedback into the evaluation of curriculum quality and the assurance of student learning outcomes.

To leverage the potential of WIL our partnerships with industry need to be seen as much more than the provision of institutional learning at sites outside the academy. Particularly, the businesses that are the work providing partners in WIL initiatives need to be seen as more than external resources that informatively support university-controlled curriculum and assessment. WIL provision requires that universities understand and appreciate those partners as contributors with them to a culture of learning provision and support. These industry partner contributions need to be understood as valuing work as learning, not work as something that needs to be integrated with learning to make that learning more authentic and thereby more vocational.

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Potential utilisation of assessment centre methodology to enhance student placement outcomes, experiences and employability

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Background: Placements are of particular importance due to the richness of learning associated with placement experiences and the wider links they represent to industry and the community. Students often refer to placements as the most significant, productive and memorable component of their training. Importantly, placements also provide the opportunity for students to become work ready, i.e., integrate their knowledge into a new set of employable skills and personal qualities. There is now increased emphasis on employability by employers and universities alike; in fact, it now represents a critical performance measure for Australian universities. Despite these key points, there appears to be inconsistencies in approaches to maximising work placements across and within Universities. Assessment centre methodology may represent a useful approach to standardise and optimise work placements for all stakeholders. Assessment centre methodology has been used successfully for selection purposes in industry for the past 50 years. However, their use as a developmental tool is less prominent. Furthermore, their application in the higher education setting, particularly in the context of placements and student development appears under researched.

Overview of issue: Only one published study was found that reported the use of a developmental assessment centre with a post-graduate sample. That study took place over 10 years ago when the concept of employability was still gaining recognition and work placements were less common. The current paper reviews this unique concept in the context of the existing literature and the current needs of Universities, employers and students.

Discussion: It is argued that the reconsideration of assessment centre methodology for development represents an innovative approach to consistently maximising work placement outcomes, experiences and employability.

Conclusions: Given the importance and increased use of placements, the application of assessment centre methodology within the placement curriculum warrants further research. This methodology represents a standardised approach for implementation within a range of placement programs to enhance student development, placement outcomes and employability.

Keywords: Assessment centres; development centres; work readiness; employability; placements.

Introduction

The current paper examines a topical issue relating to enhancing student placement outcomes, experiences and employability. The importance of placements as a form of work-integrated learning is discussed and established. Despite this importance, this paper argues that insufficient attention has been paid to maximising student development while on placement, which may be due to the complex nature of placements and associated curriculum challenges. The use of assessment centre techniques in a developmental context offers a valuable opportunity to address this concern and this paper explains what is involved in this methodology. This paper argues that the use of an assessment centre approach will enhance student development prior to and during placement and improve employability by providing comprehensive feedback to the student obtained via a range of assessment activities and tools, aligned with job essential competencies.

As Australia faces the challenges of potential skill shortages and internationalisation (McLennan & Keating, 2008; B. O'Connor, 2008), government, industry, and the community expect Universities to

assist by producing graduates aligned to professional and workforce requirements (Patrick, et al., 2009; M. Smith, et al., 2009). The importance of producing work ready graduates is now a prominent strategic objective of Universities. Aligned with this objective, interest in work-integrated learning (WIL) methods has surged as they are generally accepted as a superior vehicle for developing generic professional skills and improving employability for students when compared with classroom methods alone (Bleetman & Webb, 2008; Coll & Zegwaard, 2006; B. O'Connor, 2008; Patrick, et al., 2009; M. Smith, et al., 2009).

Work-integrated learning (WIL) is defined as “an umbrella term for a range of approaches and strategies that integrate theory with the practice of work within a purposely designed curriculum” (M. Smith, et al., 2009, p. 23). Of the WIL methods available, student placements are considered particularly valuable due to their direct interface with the workplace. Placements involve students being placed in an organisation to receive the practical training and experience required as part of their higher education course. Placements are also referred to by a range of terms such as internships, practicum, apprenticeships, cooperative based learning, and industry based learning (Bennett, 2009; M. Smith, et al., 2009). Placements entail extensive involvement from industry and the University and also require integrated learning between the University and the workplace (Holdsworth, Watty, & Davies, 2009; Martin, Coll, et al., 2009).

Importance of placements

Placements are becoming so prevalent in higher degree courses that Universities Australia recently advocated the use of a national internship scheme. This scheme aims to address skill shortages and student employability problems such as the insufficient generic skills noted by many graduate employers (McLennan & Keating, 2008; C. Smith, 2009). The increased use of placements in higher education is not surprising given that students often refer to placements as the most significant, productive, and memorable component of their training (Lefevre, 2005). In addition, the ability of placements to positively influence high priority areas for our economic future, such as partnerships and student employability has been widely acknowledged by industry, government and Universities (Bleetman & Webb, 2008; Huntington, Stephen, & Oldfield, 1999; McLennan & Keating, 2008; Murakami, Murray, Sims, & Chedzey, 2009; Pelech, Barlow, Badry, & Elliot, 2009; C. Smith, 2009; M. Smith, et al., 2009).

It is critical to consider the strong link between placements and the development of generic employability skills (Precision Consultancy, 2007). Although employability can be a multidimensional and complex notion (Lees, 2002), a useful definition used in the higher education sector is “a set of achievements – skills, understandings and personal attributes – that makes graduates more likely to gain employment and success in their chosen occupations which provides a flow on benefit not only to themselves but the workforce, community and the economy” (Bleetman & Webb, 2008; M. Smith, et al., 2009, p. 19). Naturally, employability is high on the agenda of many governments and employers given current and future human capital and economic related challenges (Lees, 2002; B. O'Connor, 2008). As such, the need to develop highly skilled professionals who are responsive to social, cultural, technical, and environmental change, and who are able to work flexibly and intelligently in a range of business contexts, is seen as critical (Bridgstock, 2009; Precision Consultancy, 2007). Such requirements clearly indicate the need to go beyond standard teaching methods of discipline-related knowledge and incorporate placement approaches that link more directly to employability.

It is widely acknowledged that employers now seek skills from course graduates beyond pure academic achievement or discipline-specific knowledge (Crebert, Bates, Bell, Patrick, & Cragnolini, 2004; Graduate Careers Australia, 2008; B. O'Connor, 2008; Patrick, et al., 2009). In fact, many argue that graduate attributes and generic skills are the key variable determining graduate success in the workplace (Crebert, et al., 2004). Examples of generic skills include those that facilitate coping

with the social realities of work such as the ability to communicate well, relate to others, plan and manage job demands, leadership qualities, and the ability to cope with stress (Coll & Zegwaard, 2006). Employers are seeking graduates equipped with specific discipline knowledge as well as various professional and generic skills to deal with complexity, solve problems and communicate effectively (Murakami, et al., 2009). This theme, coupled with the fact that graduates and employers overwhelmingly endorse work based placements as a means to develop attributes thought to be integral to success at work (Crebert, et al., 2004), clearly justifies the importance of considering the employability agenda within strategies to enhance placement outcomes.

Placements – current challenges

Despite the importance of placements, it is of concern to note that there does not appear to be a consistent or widely recognised approach to maximising work placements across or within Universities (Bennett, 2009; Bullock, Gould, Hejmadi, & Lock, 2009; Coll, et al., 2009; Martin, Coll, et al., 2009; Patrick, et al., 2009). In fact, it has been argued that despite the critical learning obtained from placement experiences and the preparation of students for placements being very important areas (Huntington, et al., 1999; Richmond & Sherman, 1991), these topics are under researched and the associated pedagogies not well understood or consistently endorsed (Bullock, et al., 2009; Coll & Zegwaard, 2006; Murakami, et al., 2009; L. O'Connor, Cecil, & Boudioni, 2009).

One hypothesis for the lack of consistency is the complexity associated with placements. This intricacy is largely due to the unique nature of placements when compared to standard university subjects. One reason for this point of difference is the involvement of an additional stakeholder group, the industry partner providing the placement. Successful placements are dependent on effective partnerships between all stakeholders involved and to ensure all benefit, placements need to be well developed and collaborative (Wilkinson, 2008). It is therefore critical to manage expectations of all placement stakeholders to ensure valuable placement experiences and outcomes are achieved (Knight, 2006). Furthermore, given the diverse groups involved in these partnerships, the alignment of expectations is not usually straightforward. For example, studies in this area have typically found that industry partners exhibit differences in opinion regarding the nature and purpose of generic graduate skills and there is often conflict between University and workplace expectations (Coll & Zegwaard, 2006; Crebert, et al., 2004; Owen & Stupans, 2009).

Another reason for their uniqueness is that placements possess a variety of simultaneous benefits not only for industry partners and universities, but for students as well. In relation to students, Coll, et al. (2009) identified and summarised a considerable number of benefits linked to placements and categorised these into four areas. The first category is related to academic benefits such as increased discipline thinking, motivation to learn, and classroom performance. The second area identified was personal benefits such as enhanced self efficacy, interpersonal relationships, self confidence, and initiative. Thirdly, the category of career benefits was identified, which included the opportunity for career clarification, discipline specific practical experience, and enhanced employability. The last category referred to was work skill development benefits and included aspects such as developing work ethic, knowledge of organisational culture, and exposure to industry.

A further form of placement complexity is due to the wide variation that occurs within placements. For example, students are likely to be working in different organisations, working for different supervisors, and working on different projects within their discipline. In other words, the experiences of each student can be varied and dependent on a range of factors (Crebert, et al., 2004; Huntington, et al., 1999; Martin, Coll, et al., 2009; Murakami, et al., 2009; Owen & Stupans, 2009). Such diversity can make standardisation for the purposes of assessment or development of student learning extremely difficult.

The complex factors described thus far are linked to a number of challenges for placements must be addressed to further realise benefits for all stakeholders. Upon review of the literature, a key theme relating to the improvement of placement experiences is the need for enhanced and explicit structural and foundational supports to enhance learning and integration. For example, a common criticism is the use of implicit rather than explicit methods in consolidating placement learning, which leads to the inconsistencies of placement pedagogies, experiences, and outcomes (Martin, Coll, et al., 2009; Owen & Stupans, 2009).

The need to enhance learning on placement via explicit reflection techniques was also suggested by Crebert et al. (2004) who surveyed graduates from three schools who had participated in placements to determine their perceptions on the contributions that university, placement, and post-graduation employment made to the development of their generic skills. Supplementary focus groups were also conducted with employers and graduates. In the findings, students confirmed the need for deliberate and critical reflection opportunities to ensure learning prospects from placements were capitalised on. Although the idea of reflection is not new and its importance is discussed frequently in placement literature, it was perceived that insufficient structure and preparation is provided by Universities in this area (L. O'Connor, et al., 2009; Owen & Stupans, 2009). To optimise learning opportunities from placements, students need to be capable of contributing to the workplace environment and be encouraged to reflect on their experiences in an effective way (Martin, Fleming, Zinn, & Hughes, 2009). It was concluded that Universities need to do more to incorporate and structure collaborative learning opportunities into placement learning aims and objectives for students.

Challenges aligned with these ideas were also identified by Owen and Stupans (2009) who conducted a research study to map experiential placements across Australian pharmacy programmes. A variety of methods was utilised including interviews, programme mapping, consultations with over 250 participants, and analysis of handbooks. In their review of the literature and via their own research, Owen and Stupans concluded that to take full advantage of placements, there was a need for greater goal clarity and improved scaffolding at pre/during/post placement stages. They argued that although learning can occur spontaneously in any environment, the use of scaffolding which involves structured planning within a specific context can greatly accelerate the learning process.

An additional priority identified in the two above mentioned studies was the importance of building student and supervisor skills in reflection and feedback. Specifically, University and workplace supervisors need to take more responsibility for planning the experience, increasing the student's awareness of the experience and providing robust feedback regarding the student's performance (Owen & Stupans, 2009). It was recommended that academic staff need to further encourage students to seek out and negotiate opportunities for skill development and formalise these processes (Crebert, et al., 2004). It is not clear, however, what reliable and valid methods are available to assist supervisors in this important task.

To address the challenges described, it appears time for new approaches and thinking within the placement curriculum. When the strong value and benefits of placements are considered alongside their expected usage increase, investigation into how to consistently capitalise on placement experiences appears well warranted and overdue. It is proposed that the incorporation of assessment centre techniques, as they relate to development specifically, could offer a valuable approach to addressing the concerns described thus far.

Assessment and development centres

Assessment and development centre techniques have been utilised extensively in organisational settings for the past 50 years (Briscoe, 1997; Lievens, 2001; Waldman & Korbar, 2004; Woodruffe, 2007). Although the assessment centre method is best known for its powerful contribution to recruitment and selection in industry (Mayes, 1997), they have gained some recognition for their

value and potential merit as a robust developmental tool (Bartels, Bommer, & Rubin, 2000; Boehm, 1985; Engelbrecht & Fischer, 1995; Howard, 1997; Kottke & Shultz, 1997; Mayes, 1997). There is a vast array of research attesting to the quality of information that can be gained from well designed centres, including their high reliability and validity (Howard, 1997; Lievens, 2001). In particular, assessment centres have been shown to have very high criterion-related validity in that they correlate very highly with potential and performance ratings (Howard, 1997) and may predict graduate employability and career success (Waldman & Korbar, 2004). Specifically, it has been suggested that assessment centres could be used to measure the work readiness of students and the effectiveness of Universities in helping students develop job relevant skills (Kottke & Shultz, 1997; Waldman & Korbar, 2004).

An assessment and development centre is often described as a place, but it is actually a process. These centres employ a variety of assessment techniques to provide participants with the opportunity to demonstrate, under standardised conditions, essential job related skills/dimensions, abilities, and competencies (Kottke & Shultz, 1997). Some examples of job related dimensions/competencies typically assessed include oral communication, written communication, interpersonal effectiveness, strategic thinking, and problem solving and analysis. Although assessment centres can include formal tests such as personality and cognitive ability measures (Howard, 1997), the true hallmark of this method is seen to be its use of behavioural or performance based exercises or simulations (Waldman & Korbar, 2004). Examples of simulations include an in tray (i.e., a variety of information the participant has to review and sort which simulates problem solving and written work), a meeting with a customer, superior, or subordinate to deal with a particular issue (i.e., use of a role player to simulate meetings with individuals) or a group meeting (i.e., to simulate group problem solving and meetings). Participants take part in these simulations and their performance is observed, recorded and integrated against the essential job components to give accurate information on current or potential competence (Woodruffe, 2007).

Although it is possible to think creatively in the design of a centre, there are certain rules that must be followed to ensure the robustness and validity of data and outcomes (Howard, 1997; Woodruffe, 2007). The literature provides an extensive discussion of the generalisations that must be present for a process to be considered a valid assessment centre (Howard, 1997; Lievens, 2001; Woodruffe, 2007). In summary, firstly, they must use dimensions relevant to job success which are identified via an appropriate method, including job analysis techniques. A comprehensive job analysis is essential to obtain an accurate specification of what will be measured at the centre and is considered one of the most crucial aspects of the process (Woodruffe, 2007). Second, assessment techniques must be designed to elicit information on these dimensions/competencies and multiple techniques must be used. Thirdly, multiple assessors should be used to observe and evaluate participant performance. These assessors must receive training and be competent in the skills of observation and rating behaviour. Lastly, a systematic procedure needs to be utilised to record observations, and all data must be pooled by a meeting of assessors or statistical techniques to ensure an integrated picture of participant performance. To ensure enhanced learning outcomes, it is also important to provide adequate feedback to participants, particularly in a developmental setting so that participants accept the feedback and have opportunity to take adequate action on the results (Boehm, 1985). The adherence to these generalisations ensures that, despite flexibility in their design and potential application areas, consistency and robustness of assessment centre data and outcomes remains paramount.

Despite research in industry substantiating their use and value, the limited use of assessment and development centres in academic settings has been acknowledged (Bartels, et al., 2000; Waldman & Korbar, 2004). The majority of assessment centre techniques that are utilised in higher education appear to be purely for assessment or grading purposes and mainly with undergraduate students in business settings, rather than for development purposes (Bartels, et al., 2000; Riggio, Mayes, & Schleicher, 2003). This limited use is despite promising results obtained in academic settings. For example, Extejt and Forbes (1996) investigated the impact of a multi-method development program

on management skills with undergraduate business students in an academic setting. Participants who took part in the assessment centre alone produced more positive changes than those participants who only participated in the management development program. It was found that the knowledge of results led to improved student performance, and participation itself was perceived not only as a positive learning experience and skill development exercise, but it also enhanced their motivation for subsequent programs. In addition, Waldman and Korbar (2004) demonstrated that an assessment centre can be successfully developed for the purpose of measuring student learning outcomes as well as practical, work related competencies required for success in real world occupations. They suggested that an assessment centre may have valuable developmental application as it can assist students to better target developmental planning and steer careers accordingly prior to graduation. In line with this, research suggests that assessment centres when utilised for development can provide a number of benefits including providing the opportunity to see how an individual performs in a work situation as well as providing participants with insights into their strength and development areas, thereby helping them to target their training and improve their performance (Howard, 1997). The developmental centre process assists in awareness building and motivation to improve, as it has been found that people are more open to developing themselves when they know their developmental needs (Mayes, 1997).

Despite suggestions regarding how assessment centres may be valuable for student development (Waldman & Korbar, 2004), only one published study was found that reported the use of a developmental assessment centre with a post graduate student sample who complete placements as part of their course. Kottke and Shultz (1997) designed and implemented an assessment centre for developmental purposes with organisational psychology students as part of a practicum course requirement. To develop the centre, graduates of the course and their supervisors were interviewed to identify the core competencies required for success relating to this field. Six competencies were identified: written communication; oral communication; problem solving; organising; interpersonal; and organisational survival skills. To measure these skills four activities were designed: a leaderless group discussion; an oral presentation; an in-basket; and a role play. Assessors were trained prior to the centre and rated the students on the competencies during the activities. Written feedback was provided to students to use in career development planning. Benefits of the centre included the provision of rich developmental feedback to students and the identification of group development needs for the curriculum. It is important to note that this study took place over 10 years ago when the importance of placements, including their link to partnerships and employability, was still gaining recognition and prominence. In addition, this study did not monitor student progress throughout placements and adjust developmental planning accordingly. As such, the potential benefits of this approach may not have been fully recognised at the time and now represents an opportunity for further investigation.

Potential benefits of a development centre within placement curriculum

Utilising an assessment and development centre approach as part of placement curriculum, specifically prior to placements, will provide numerous benefits that address a number of the priorities and concerns described. With respect to the need to augment placement experiences and outcomes more consistently across disciplines, assessment and development centres have a role to play here as they have broad applicability to all academic programs that teach applied material (Kottke & Shultz, 1997). Despite being flexible and adaptable to suit just about any course (Riggio, Aguirre, Mayes, Belloli, & Kubiak, 1997), their design and application principles still ensure a systematic and proven approach in the identifying and assessing of job relevant competencies and skills.

Assessment and development centre techniques can also help address the need to make competencies, job relevant skills, and placement learning more integrated and explicit. This is because the basic foundation of assessment centres is about following a robust process to identify, assess, and communicate dimensions required for job success. Identifying these essential success factors early in

the placement program and using formal processes to assess them ensures they are made explicit to all stakeholders and improves the alignment of developmental requirements across the length of the placement program. In this way, an assessment and development centre may help to provide valuable development scaffolding to further support placements.

The focus on essential job dimensions in assessment centres also represents a direct link to the employability agenda. This is because assessment centre techniques are seen to be useful in evaluating specific skills that cannot be easily assessed by traditional methods such as exams (Howard, 1997; Riggio, et al., 1997). This includes skills most often seen to be related to job success such as interpersonal skills and teamwork (Waldman & Korbar, 2004). For example, in a comparison of traditional classroom measures of student performance with those provided via an assessment centre with undergraduate business students, Bartels, et al. (2000) found that assessment centres measure domains consistent with traditional measures but go beyond in providing a higher level assessment of skill acquisition. Further, when assessment centre methods are used for the purpose of diagnosing individual development areas, this methodology has advantages over measures that are not easily developable, such as cognitive ability, as it can be ensured that the dimensions being assessed are areas that can be developed and linked to job-relevant areas (Howard, 1997).

Another key improvement area for leveraging placements was the need for improved feedback mechanisms and partnerships. However highly skilled a student is, it is unlikely that they will possess all the competencies required and individuals then need to be prepared to recognise the skills they lack and be clear about the corrective actions that can be implemented (Knight, 2006). Assessment centres are seen to be a useful tool to provide students with meaningful behavioural feedback on their strengths, development needs, and recommendations for professional development (Bartels, et al., 2000). Given placement supervisors are an important provider of this feedback, it is critical then that they have valid data and processes to base their recommendations upon that is accepted and trusted by the student. This notion is important as it has been noted in the literature that for effective learning to take place within placements, two key dynamics are required: an open and collaborative partnership, and a supportive and nurturing approach between the student and practice teacher. These two areas help to encourage student empowerment, confidence, and trust to expose themselves to being assessed so that reflective learning can occur effectively (Lefevre, 2005).

This approach may also enhance organisational partnerships where placements occur. With accurate data on strength and weaknesses, Universities can ensure that students are better matched to placements and are clearer about their placement goals, which will assist in their supervision and negotiation of skill development opportunities. Furthermore, the use of defined competencies enables industry partners to be aware of such expectations as well. For example, industry partners can be interviewed as part of the competency design phase as well as being invited to participate as assessors for the actual assessment centre. Such involvement enhances partnerships by clarifying and confirming expectations of all parties involved.

Limitations

Although numerous benefits of embedding a developmental assessment centre approach have been discussed, it is important to be aware of the potential limitations of this approach. Firstly, it has been widely noted that the design and implementation of assessment and development centres can be very resource intensive and costly (Kottke & Shultz, 1997; Mayes, 1997; Riggio, et al., 2003). The reason for this expense is due to factors such as the time involved in their design, training and use of multiple assessors, conducting the centres themselves, the turnaround of results, and provision of feedback. In fact, in relation to assessors, it has been specifically recommended that psychologists need to play a key role in assessor teams for developmental purposes (Lievens, 2001). The positive aspect though is that when such centres are conducted in an academic setting, there is potential to access a wide range of professionals and expertise including psychology. The factors described cannot be compromised

as the success of the process is highly dependent on the quality of the design and assessors utilised so it is critical to ensure these elements are conducted effectively (Kottke & Shultz, 1997). Despite this limitation, to reduce costs and resources associated, technology may offer some important avenues in this area. For example, the use of video-taping technology may be valuable for consideration as it allows further flexibility around time and resources (Howard, 1997; Mayes, 1997).

It is also important to remain cognisant of the assumptions behind the assessment centre approach, namely that participants should be able to improve on the competencies measured, are motivated to do so, and have opportunities to enhance the skills measured by the assessment and development centre (Boehm, 1985; Jones & Whitmore, 1995; Kottke & Shultz, 1997). Again, the design of the skills to be measured is critical as they need to be geared towards areas that are changeable. Program evaluations should be utilised to measure the degree of effectiveness of such programs (Boehm, 1985; Jones & Whitmore, 1995). Thus, for true learning and benefits to occur, it is not enough to just conduct the centre; the feedback and evaluation components are also critical (Boehm, 1985; Extejt & Forbes, 1996; Howard, 1997).

Despite these potential limitations, it has been acknowledged that assessment centres are well worth their expense (Kottke & Shultz, 1997; Riggio, et al., 2003). Assessment centres are seen to have distinct advantages over other methods given the comprehensive diagnosis it provides to guide development (Howard, 1997). In addition, it has been found that despite finding them challenging, participants like such centres, believe they measure job relevant areas, see them as fair and feel participation in them made them better prepared for the business world (Howard, 1997; Riggio, et al., 2003). Even university staff, who are expected to generally be less positive about such a time intensive approach, have been found to see them as a beneficial exercise (Riggio, et al., 2003).

Conclusion

With the above points of this review taken together, it is the proposition of this paper that the use of a targeted developmental assessment centre which assesses student performance on a number of job-relevant competencies will enable improved placement matching, developmental planning during placements, enhanced learning outcomes, and work readiness. Furthermore, for students, it is expected that the assessment centre will result in effective insight into their strengths and areas for development, the potential requirements of employers, needs of professional practice and enhanced employability. The employment of a developmental assessment centre approach to placements will enhance the development of graduate skills. This in turn will lead to significant external impacts, including increased confidence and skill levels resulting in better outcomes for employers, industry and the professions of which students are a part. For Universities, such an approach will result in improved teaching as there will be a better understanding of the strengths and weaknesses of each student (both individual and from a group perspective); allowing placement supervisors to place each student in a placement relevant to their skill level and support needed, and enable specific developmental strategies to be put in place for each student to ensure that, at the conclusion of the degree, all students demonstrate sufficient competency levels in areas not traditionally assessed or developed through academic study. Partnerships can also be enhanced with students, government, industry, and other stakeholders beneficial to the university, as open communication will be fostered regarding development needs which ensures alignment of expectations.

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Employability+ - How to maximise self directed learning in co-curricular work placements

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Learning outcomes through WIL (intra-curricular) placements are widely recognised, documented and promoted. However co-curricular placements, whilst considered useful for gaining employability skills, do not share the same recognition as WIL placements. How can we as practitioners encourage workplace “learning” if it is not academically assessed?

This paper first discusses the main types of professional co-curricular placements, paid and unpaid and the role of universities to promote these opportunities. The Careers & Cooperative Education (CCE) unit at the University of Western Sydney has arranged more than 1,800 co-curricular placements. The CCE model has evolved over time and now incorporates an integrated approach with simple procedures to ensure that students have a worthwhile learning experience.

To make the learning in the workplace overt rather than serendipitous the CCE unit provides more than just an information or matching service for placement opportunities. Students receive training and support prior to and during a placement and develop their own personal learning contract. This ensures that the learning outcomes in the workplace are self-directed, explicitly documented and encourages reflection.

Keywords: Co-curricular work placements; intra-curricular work placements; learning outcomes, cooperative education; placement programs

Introduction

Students are constantly encouraged to gain industry experience prior to graduation to gain benefits such as acquiring employability skills and an understanding of the workplace, road testing a career, and having an edge over other applicants when applying for graduate positions. Certainly advice regarding the last benefit is vindicated in the 2009 AAGE report which shows that 60% of the larger employers offered one or more graduate positions to students who had already completed a summer or other placement with them (Australian Association of Graduate Employers, 2009).

Students gain these industry experiences in the form of intra-curricular or co-curricular placements. Intra-curricular refers to Work Integrated Learning (WIL) placements which are embedded within courses and are compulsory for students to complete. These include practicum for Education students, field placements for Environmental Science students and industry experience for Engineering students among others. The time spent on these WIL placements can vary considerably, from a couple of weeks to a whole year.

Co-curricular refers to placements that are related to the course the student is enrolled in but are not a formal requirement of the course. Co-curricular placements vary in type and are arranged in diverse ways ranging from personal contacts and networking, to applying for publicly advertised jobs to applying for jobs through university career offices. Co-curricular placements can be paid or unpaid

and can vary in length and type of employment, ranging from casual part time to full time ongoing work.

The learning outcomes through intra-curricular placements are widely recognised, documented and promoted. However co-curricular placements, whilst considered useful for gaining employability skills, do not share the same recognition as WIL. The main points of differentiation between intra-curricular and co-curricular placements are that the former are predominantly part of structured, supported programs with defined learning goals and obligatory assessment or reflection reports on completion. Co-curricular placements on the other hand do not usually have explicit learning goals established at the start of the placement nor obligatory reflection or assessment reports on completion.

The contention of this paper is that co-curricular placements *that are facilitated by universities* can also have genuine learning outcomes for students which are similar to WIL placements. It should be noted that in any case the learning outcomes of intra-curricular placements can vary considerably, depending on the structure of the program, the time spent (some WIL placements can be as short as two weeks) and the guidance provided

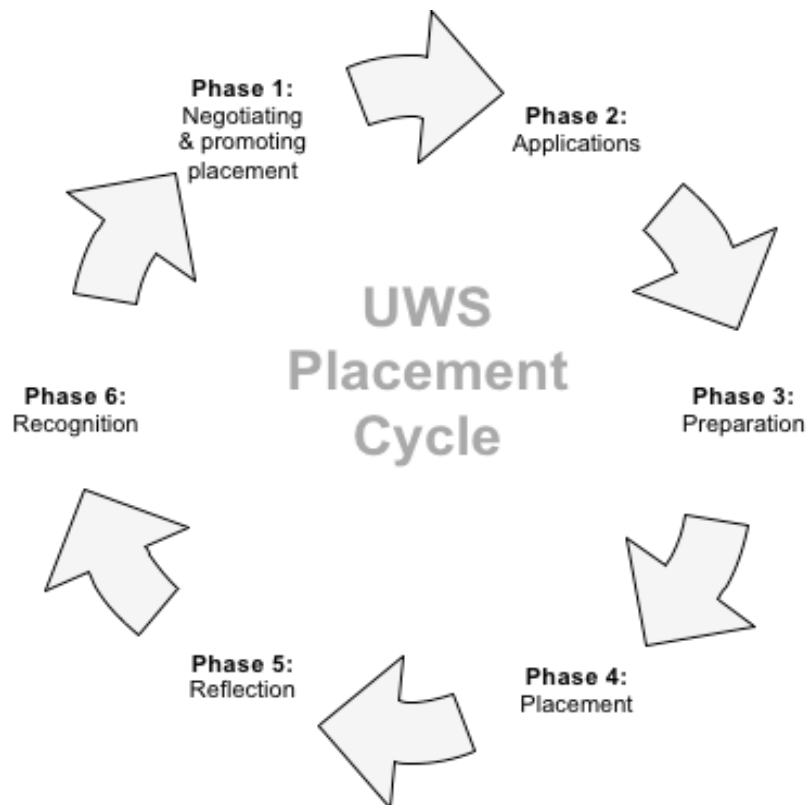
History

At the Careers & Cooperative Education unit of University of Western Sydney (UWS), co-curricular placements are promoted mainly in two ways: by advertising jobs listed by employers on the online jobs noticeboard where students apply directly – which is primarily a linking service. The second is the flagship placement programs which are run by the unit and open to students and recent graduates from all disciplines.

UWS placement programs are distinctive as they are paid opportunities and the Careers & Cooperative Education unit charges organisations and pays the student. The opportunities vary depending on the requirements of the industry partner but have to be course related. They can be for a specific project over the vacation or for an internship and extend from 4 weeks to 26 weeks.

It is in these placement programs that procedures have been established to ensure that there are genuine learning outcomes and skills gained by the students. These procedures have evolved over time as the programs have been continually enhanced based on feedback received and are described below in six key phases (see Figure 1).

Figure 1: UWS Placement Cycle



Phase 1 – Negotiating and promoting co-curricular placement

Each placement is carefully negotiated with the employer. This involves a comprehensive discussion around expected deliverables, tasks to be undertaken, and the skill set required.

A placement description is then developed, containing a description of tasks related to the position and the selection criteria.

The placement is promoted to students in relevant disciplines through a variety of student-friendly mediums including an online noticeboard and sending emails to targeted students.

Phase 2 – Applications

Students are invited to competitively apply, and are asked to supply a cover letter, resume, and a statement addressing each of the selection criteria. Students are encouraged to attend skill development workshops presented by the careers unit. Students are also directed to on-line resources to assist them with preparing their applications.

The Careers & Cooperative Education Unit has a strong commitment to positive candidate management. A number of measures have been implemented to ensure that all students who apply for the program are afforded the best chance of being placed. Students who do not submit all of the required documentation, or who do not individually address each of the set selection criteria, are invited to resubmit their application if time permits. By providing them with support and guidance through the application process, a marked improvement in the quality of applications received has been observed. This has also assisted in providing the employer with the best match for the position.

All applicants are expected to attend an interview skills workshop. The interview skills workshop has been particularly useful with a marked increase in employer satisfaction with the interview performance of UWS candidates. The feedback provided to students and attendance at the interview skills workshop has resulted in many students being successful in subsequent applications.

Phase 3 – Preparation

Students receive training and support before during and after their placements.

After students are selected they attend a “preparation for the workplace” workshop or complete online modules. The workshop and/or modules cover topics such as business communication, project planning, writing agenda and minutes and professional behaviour in the workplace. These modules are critical as for many UWS students this could be their first professional placement.

Phase 4 – Placement

The CCE Unit has a quality assurance commitment to both the student and the industry partner. Staff keeps in regular contact through a variety of means, including phone calls, emails and site visits.

During their placement, students are required to keep in touch with the Program Coordinators by putting in at least one blog a week, submitting time sheets and keeping the unit informed about any potential or actual issues. Being resource intensive only a few site visits are conducted, and employer contact is primarily by email and phone.

Phase 5 – Reflection

At the conclusion of a placement the employer must sign off a completion form to indicate the placement has been satisfactorily completed. Both employers and students are required to submit a completed survey form where they are invited to provide their feedback on the placement. This feedback is received directly by the unit. However options are being explored for a more transparent process for employer/student feedback.

Students also need to prepare and submit a reflective report. In order for the students to be able to review their placement experience well and apply its lessons effectively in their future personal, academic and career development, students are asked to reflect on/address the following:

- Description of the placement and the organisation that employed them
- The students’ role and responsibilities including their interaction with supervisors and co-workers; the established communication channels and the students’ contribution to the organisation
- Skills and knowledge gained during the placement as well as skills the students would like to further develop as a consequence. Students are prompted to reflect on graduate employability skills (Precision Consultancy, 2007) and comment on them.
- The placement as well as their personal outcomes and insights including any feedback they received from their employer
- Objective assessment of the placement that should include evaluation of the professional and personal objectives
- The impact of the placement on their career goals

By asking students to prepare these reflective reports valuable information is obtained on students’ learning experience.

Phase 6 – Recognition

Twice a year an Awards function is held to recognise the students and industry partners who have participated in the program over the previous six months. This is a formal event officiated by the Chancellor and/or the Vice Chancellor and attended by senior staff within the university. Students are encouraged to invite parents and partners. Parents particularly enjoy the event, for many of whom this is their first visit to UWS.

At this function outstanding awards are presented to both students and industry partners based on nominations received. This has been particularly inspiring as it enables students' achievements and industry partner support to be highlighted, which could otherwise have gone unnoticed. The function also tends to lead to more opportunities as industry partners on hearing about placements at other organisations consider offering additional internships. Students who receive the Outstanding Award have in some cases been offered graduate positions at this function.

Continuous improvement – an evolving program

All these measures have ensured the success of the programs and since 1995 over 1,800 students have successfully completed placements. Student and employer data have been maintained throughout the 15 years and survey forms have remained basically the same, permitting longitudinal studies on benefits/issues with the programs to be conducted. These findings indicated that in general over 90% of students found the placements useful and that they gained new skills. Similarly employer findings indicated that over 90% found the students had the requisite skills, behaved professionally in the workplace and were enthusiastic.

Learning in the workplace

Since the learning through co-curricular placements is not academically assessed, it is vital to continue assessing the nature of the support provided to students with their learning experience all the way through their placement.

Even though students seeking placements are generally very enthusiastic, motivated, ambitious and highly interested in practical applications of their university acquired knowledge, it was suspected, while appreciating their positive approach that the students were often not perceptive to the opportunities and the kind of learning a placement had to offer.

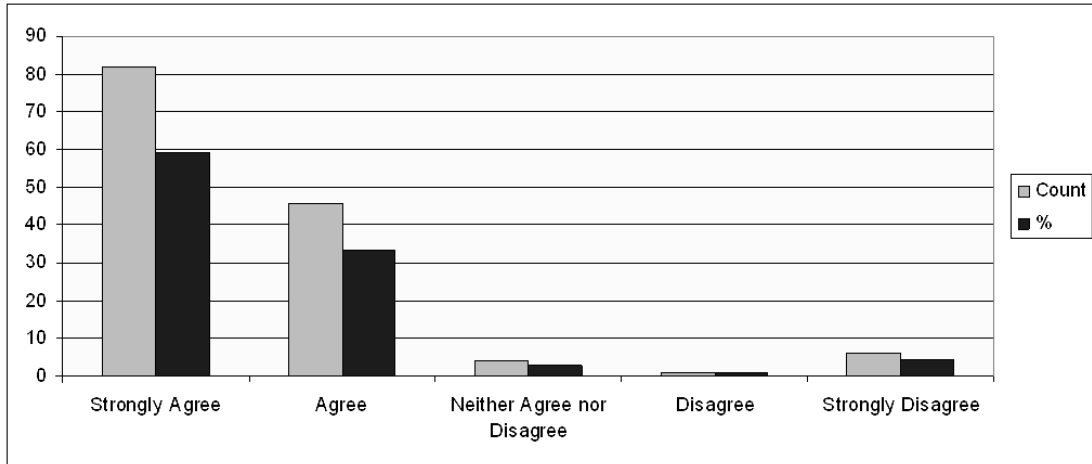
In order to measure how “work ready” the UWS students felt before undertaking a placement, a simple survey was prepared so as to collect the needed data. It was anticipated that by comparing their pre and post placement “attitude”, the type of learning contract that would be most suitable for co-curricular placements could be determined.

One of the anomalies discovered was that students tended to be highly confident of their skills prior to placements and gave an impression that they already “knew it all”. However, it was often noted that in reflective reports students acknowledged the extensive learning that had occurred in the workplace allowing them to acquire new skills. This could be an indication that students may not initially have been aware of the learning curve that awaited them.

Data was analysed from 139 anonymous student survey responses, taken prior to the commencement of the individual work placements. The results are shown below.

Question 1

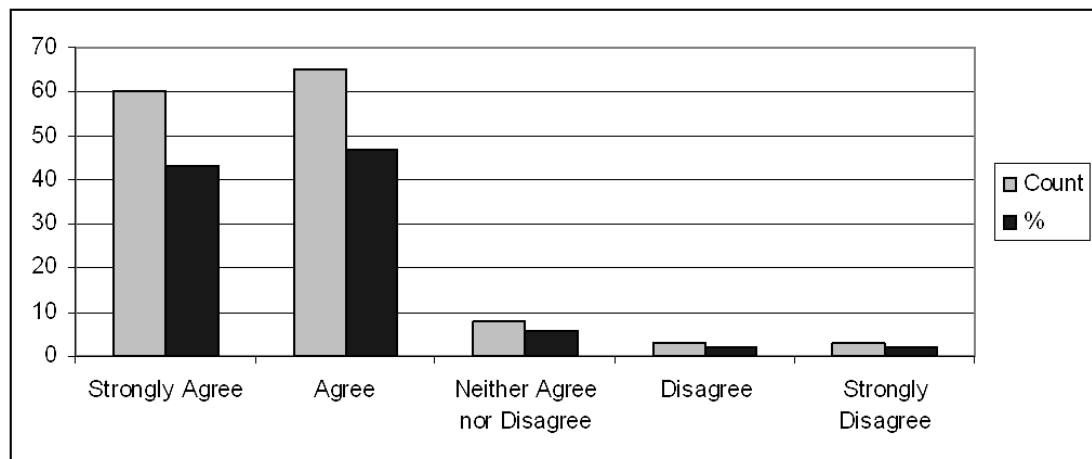
I am confident that I can successfully complete this project/placement.



Just over 92% of respondents indicated that they were confident they could successfully complete their placement.
5% were not confident.

Question 2

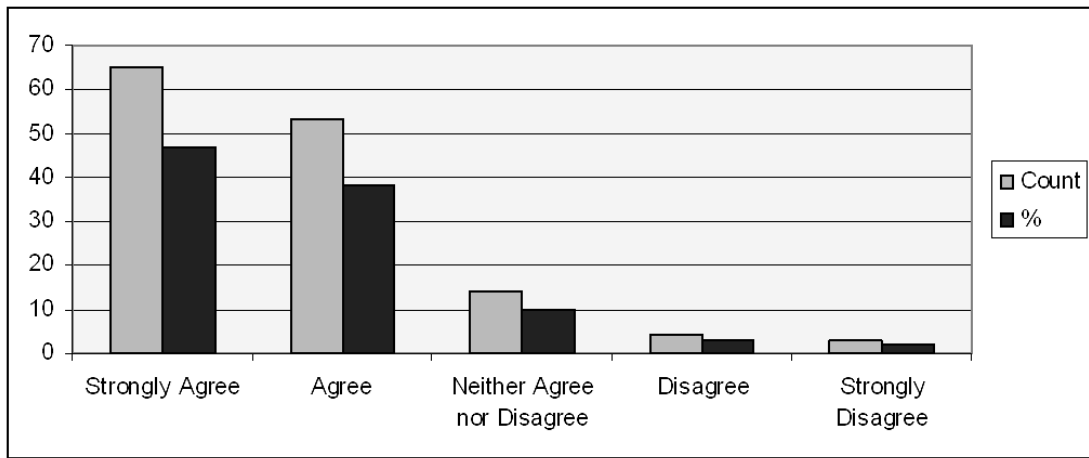
I have the necessary skills to complete this project/placement.



Almost 90% of respondents thought they had the necessary skills to complete their project.
4.4% did not think they had the necessary skills.

Question 3

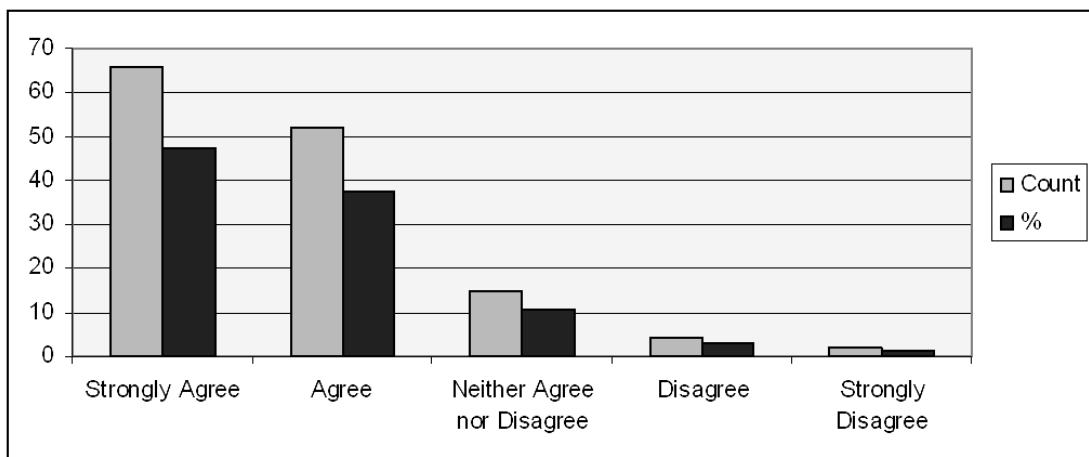
I am confident that I am ready to enter the workforce.



Almost 85% of respondents were confident that they were ready to enter the workforce. 10% were neutral in responding to this question, whereas 5% of respondents were not confident.

Question 4

I am confident that the theories and skills I am learning in my degree course will have a practical application in the workplace.



Almost 85% of respondents were confident that the theories and skills they were learning in their degree course would have a practical application in the workplace. 10.8% were neutral in responding to this question, whereas 4.3% of respondents were not confident.

Discussion on initial confidence and some changes in preparation phase

While this data shows overwhelming confidence of students before commencing their work placements, analysis of reflective reports details a discrepancy. In reality the students were learning many new skills, enhancing existing skills, and growing in confidence during their work placements.

Based on the nature of the questions 1-4 and the data collected, this survey confirmed the initial belief that the students, before commencing a placement, were inclined to perceive it more as an opportunity to apply their knowledge in a real world and less as a multifaceted learning experience that needed to be thought through first.

This indicated a need for more individualised attention to pre placement preparation for students. As a result of this research the decision was made to enhance the preparation phase of the placement program cycle by introducing individual learning contracts. Students were asked to complete a Learning Contract where they had to express their learning goals and prepare a written contract. In the Learning Contract students identified the objectives/goals (knowledge/skills to be gained), the tasks and strategies (how these skills will be developed) and anticipated evidence of this learning.

However, it was found that it was not always easy for students to complete this contract on their own, and often they needed assistance from a Careers Education Consultant. As this was too resource intensive, the process has been modified. Students are asked to rate their current skill/competency level and indicate expected development outcomes prior to commencing the work placement. A list of generic skills is given to students as a starting point. This list is derived from the UWS Graduate Attributes (University of Western Sydney, 2010) and Graduate Employability Skills (Precision Consultancy, 2007) Students can modify or add to the list to suit their individual placement. This list is revisited at the end of the placement to assess any development in skills/competencies. Students can then reflect on this process in their final report.

As testament to the flexibility of the program, it has evolved over time and been modified as required based on feedback received from participants. This has been critical to the success of the program. Regular improvements in the program has resulted in excellent employment outcomes with anecdotal evidence that over 60% of students gain ongoing work due to their placement.

The way forward

The way forward is to provide more co-curricular opportunities to students and to ensure that learning outcomes and skills gained are explicit and documented.

Whilst Work Integrated Learning does provide opportunities for students to get a brief taste of the workplace, students benefit from multiple experiences of workplaces: “Students need to be introduced to a range of work contexts, from which they can gain a broader view of the possibilities open to them.” (Australian Learning & Teaching Council, 2009). These additional opportunities are particularly valuable for students from equity groups such as international students, from Culturally and Linguistically Diverse backgrounds, and students with a disability. (Australian Learning & Teaching Council, 2009).

Co-curricular placements help students to gain additional experiences in the workplace. These are invaluable for students and should not be considered as less “serious” than what is offered as part of a course (van der Werf, 2009). Our contention is that the learning gained by students from these co-curricular opportunities, *when supported by the university*, is as important and valuable as when it is embedded within the course. The ongoing challenge has been in making the learning explicit without a cumbersome or resource intensive process. It is anticipated that the simpler process of self rating of expected skills and competencies will serve our purpose.

The importance and value of work placements, whether co-curricular or intra-curricular has been widely recognised by all the stakeholders. “Where once they were an informal means of gaining practical insight into a particular career, today internships are a (necessary) rung on the ladder to success” (The Panel on Fair Access to the Professionals, 2009). There is almost an expectation by employers that graduates will have had some relevant work experience prior to graduation (Australian Association of Graduate Employers, 2009). Universities have risen to the challenge with most Australian universities strengthening their commitment to WIL by adding WIL to their strategic directions and re-shaping areas of the university to better manage and support WIL provision (Australian Learning & Teaching Council, 2008). In the past few years there have been a number of initiatives such as WIL incorporated in 25% all undergraduate courses at Victoria University, a third of courses being experiential at the University of South Australia, all undergraduates having to complete a voluntary unit at Macquarie University (Campus Review, 2010) and all Business students completing an engaged unit at the University of Western Sydney.

However there is still a limitation to the availability of these opportunities in terms of the number to meet the expectation of students. This has been recognised by the Department of Education, Employment and Workplace Relations (Department of Education, Employment and Workplace Relations, 2008) and Universities Australia and was highlighted in the Discussion Paper in October 2007 (Universities Australia, 2007) on the National Internship Scheme authored by Glen Withers CEO of Universities Australia. The paper promotes the view that internships should be completed by the majority of (if not all) Australian university students. This was followed by a Position Paper in May 2008 (Universities Australia, 2008) where the concept of providing university students with internship opportunities was applauded and widely accepted as an ideal way for university students to enhance work ready skills in a structured way that complements traditional studies. However the reality is that with the exception of a couple of pilot schemes the National Internship Scheme has unfortunately been put on the back burner.

One of the key contributing factors towards establishment, development and continuance of such a scheme would be an overwhelming allegiance of government and private enterprises across Australia. It is important that the recognition and initiative of Australian Universities and their representing associations and networks is matched by organisations and business of all sizes, across all sectors. Their commitment to the provision of student placements is essential for the Universities’ capacity to provide sufficient WIL placements to their students. There are a number of organisations which have been working with Australian Universities and have enabled many students to join them as unpaid or paid interns.

The Australian Collaboration Education Network (ACEN) has also taken up the challenge of providing more internship opportunities to higher education students by developing a national WIL portal with the aid of a DEEWR grant. Victoria University has taken the lead in this ACEN project in partnership with 33 universities (Department of Education, Employment and Workplace Relations, 2008) and the portal is expected to be operational in 2010. The portal will have information on disciplines and courses offered at each participating university along with other relevant information. Employers will be able to identify which university or universities they wish to target and provide information on the particular co-curricular or intra-curricular opportunity they wish to offer. Universities will then respond directly to the employer. The portal will enable employers to contact multiple universities from a single site. The portal is based on the successful Canadian model in British Columbia, where increasingly more organisations promote their placement opportunities solely via the portal, including all British Columbia public sector internships.

Universities need to support these and other measures so that all students have the opportunity to gain invaluable experience whether it is through intra-curricular or co-curricular work placements. Practitioners need to also ensure that co-curricular placements are supported so that the co-curricular learning is self-directed, explicitly documented and encourages reflection.

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Mapping Career Development Learning in the Curriculum: Implementation of the Australian Blueprint for Career Development in Higher Education.

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Curtin University strives to produce ‘career ready’ graduates. To assist with achieving this outcome, the Curtin Careers Centre, in collaboration with the Faculty of Health Sciences and the Office of Assessment, Teaching and Learning (OATL), is exploring the delivery of career development learning (CDL) as a fully integrated part of the formal curriculum. This systematic approach will allow career practitioners and teaching staff to more accurately assess the extent to which students have met key career development competencies on completion of their degrees. This paper draws on cases studies from the School of Psychology and the School of Pharmacy to describe the step-by-step process of mapping existing CDL activities within curricula and to identify opportunities and strategies to introduce new activities where necessary.

Three key initiatives were fundamental to the curriculum mapping process: availability of the Australian Blueprint for Career Development (Blueprint) as a framework for mapping CDL to the course curriculum; the development of the curriculum mapping tool by the Office of Assessment, Teaching and Learning (OATL) at Curtin University; and an increased focus on Work-Integrated Learning (WiL) within the higher education sector. The paper reflects on the initial outcomes of this synergy and on potential opportunities for ongoing teaching and research collaborations aimed at facilitating career development learning in university settings.

Keywords: Curriculum mapping, career development learning, assessment, Pharmacy Psychology.

Background

In 2009 Curtin University’s Careers Centre began work on a project with the Office of Teaching and Learning (OATL) and the Faculty of Health Sciences to map career development learning (CDL) in the curricula of two Bachelor degrees, namely Psychology and Pharmacy. This initiative, referred to as ‘careers in the curriculum’, is intended to compliment the traditional career services (See McKenzie and Howell, 2004) delivered by the Curtin Careers Centre (the Centre). It reflects the University’s long-term commitment to the formal incorporation of CDL into all its courses and follows in the wake of a recent, university-wide curriculum review. ‘Careers in the curriculum’ represents a significant cultural shift in the role career services can play in Higher Education institutions and promises increased engagement from students and staff in career education. It is also a key step towards achieving Curtin University’s claim that all its graduates are ‘career ready’.

Previously, the career development learning of Curtin students has been primarily addressed through optional services and programs delivered by the Centre, or in an *ad hoc* manner by faculty or careers

centre staff as part of the curriculum. The success of these delivery methods depends largely on the willingness of individual students and faculty to engage with the Centre and on the competence of the teaching staff who deliver CDL independently of the Centre. This means that, while there may be many CDL initiatives occurring across the University, it is difficult to ascertain which specific career competencies are being developed and how (or if) these competencies are being assessed.

To effectively deliver CDL within curricula, all relevant stakeholders, including unit and course coordinators, teaching staff and Career Centre staff, need to have a common understanding of where this learning already occurs within the curriculum. Systematically mapping existing CDL occurring within courses is therefore an essential starting point. This involved collaboration between all stakeholders. Close analysis of curriculum maps has allowed careers staff and teaching faculty to identify gaps and develop ideas for potential activities to enhance existing CDL and Work integrated Learning (WiL). This process paves the way for strategic integration of both CDL and WiL in course design. The competencies identified in the Australian Blueprint for Career Development (Blueprint) have been used through out this mapping process as the framework for identifying CDL (including WiL) activities and assessment within curricula (see Figure 1).

Within many of the Faculties courses, CDL is recognised as an essential tool for students in their transition from study to employment, and for managing their careers beyond graduation. In a number of instances, WiL, in the form of assessable work placements, is a central component of this CDL. The two Schools that participated in this pilot project were selected for their contrasting approaches to WiL (based on professional accreditation requirements)⁴⁶ and because of their commitment to incorporating CDL into their curricula. The approach to CDL described here provides greater contextualisation for pre-existing WiL programs by assisting students to reflect on, and learn from their WiL experiences. This alone is seen to be of considerable value by some staff within the participating Schools.

Definitions

Career development learning helps individuals to make educational, training and occupational choices, and to develop the competencies necessary to manage their careers over their lifetimes (Adapted from OECD, 2004, p.19, OECD, 2009, p.1).

'*Career readiness*' describes the ability to effectively manage one's career, and to reflect upon experiences and learning to make future career decisions. To enable effective career decision making (career building), one needs to develop a decision making process that includes communication, analysis, synthesis, valuing, execution and reflection and be mindful of the influence of meta-cognition. An individual also needs to have developed a strong self-awareness (personal management) and occupational knowledge (learning and work exploration) to inform effective decisions (Sampson, Reardon, Peterson and Lenz, 2004).

A *course* is defined as an entire degree of study.

Career Development Learning and the Australian Blueprint for Career Development

The Australian Blueprint for Career Development (MCEETYA, 2009) was endorsed in early 2009 by The Hon Julia Gillard MP (Deputy Prime Minister) Minister for Education, through the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) as the framework for

⁴⁶ The School of Pharmacy requires its Bachelor degree students to complete 825 hours of fieldwork placements in community, hospital and industry sectors during the final year of the course in addition to two pharmaceutical practice units in the third year of study. These graduates are able to apply for professional registration at the time of graduation. In contrast, Bachelor of Psychology graduates, from the School of Psychology and Speech Pathology, do not undertake work placements during their four year undergraduate degree and can apply for professional registration only after they have completed either two years of supervised work practice following graduation or two years of postgraduate study.

the delivery of career education, counselling and guidance in Australia. This framework gained the bipartisan support of Federal government because of the positive impact CDL is demonstrated to have on economic, community and individual well being (CICA, 2009; MCEETYA, 2009; McMahon, Patton and Tatham, 2003).

The Blueprint is significant because it provides a national framework that can be used within Higher Education settings to design, implement and evaluate career development programs. It lists 11 career management competencies that identify the skills, attitudes and knowledge that individuals need to make sound choices and to effectively manage their careers.

Figure 1 outlines the elements of the Blueprint (MCEETYA, 2009, p.14). It highlights the 11 competencies, four developmental phases over which those competencies are refined and four-stage taxonomy used in the Blueprint to describe the learning cycle.

The four developmental phases encompass early childhood and primary school (Phase 1), middle school (Phase 2), senior high school (Phase 3) and adulthood (Phase 4). The Blueprint model assumes that all university-level students will have entered Phase 4 in their CDL. In reality, the project leaders have little knowledge of students' previous CDL experiences. In addition, the university teaches students from diverse backgrounds, including international students, indigenous students and students from lower socio-economic backgrounds. This has implications for the CDL mapping process because of the importance of assessing the existing CDL within the curriculum at the most appropriate developmental phase.

In this project the Blueprint's four staged learning taxonomy, has been viewed as an abbreviated version of Bloom's six stage taxonomy adopted by Curtin's OATL. It is acknowledged that streamlining the use of the two similar but different learning taxonomies will be required in the future.

Curtin University's Career Development Learning Plan

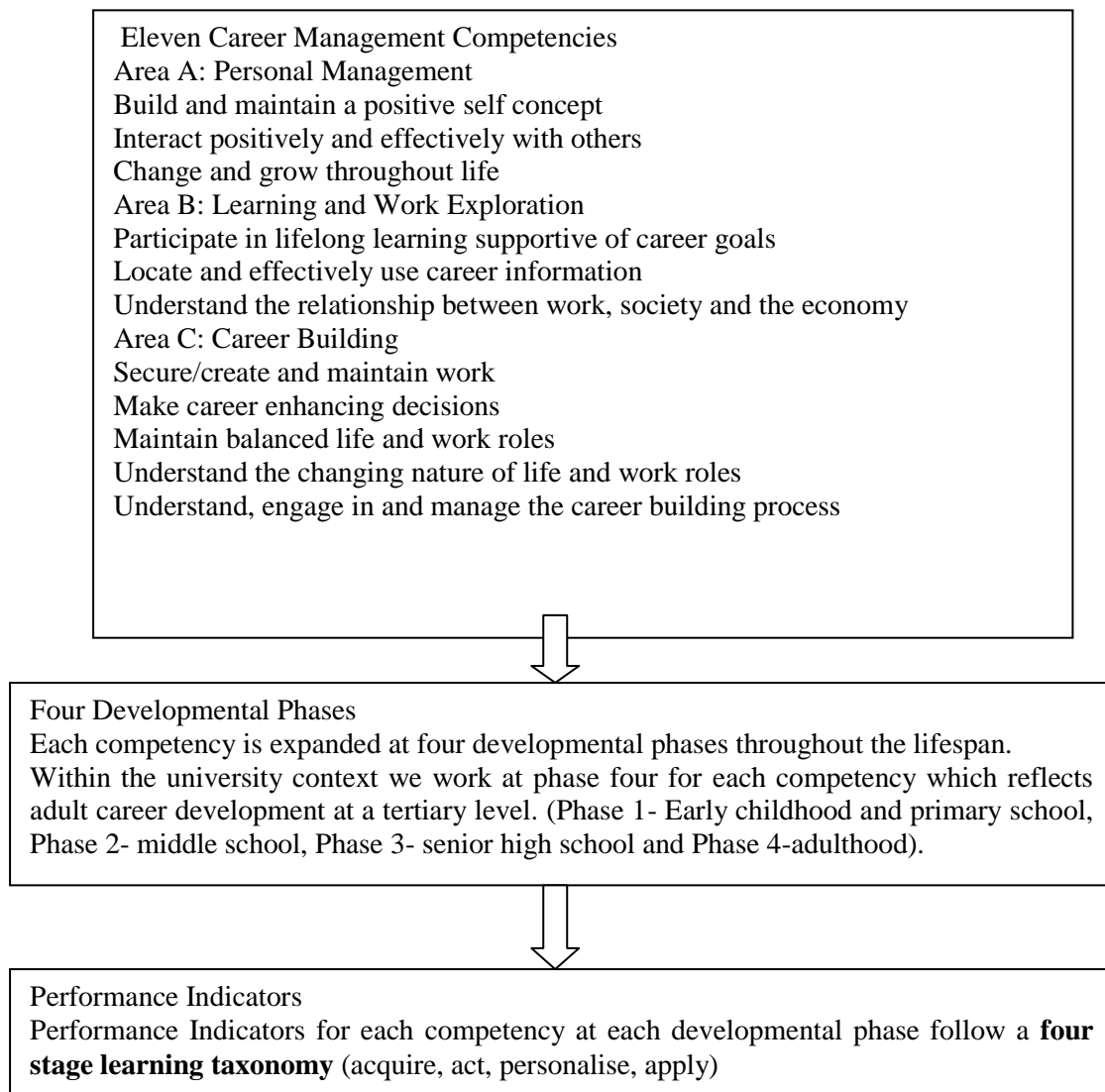
Curtin's Career Development Learning Plan was approved by Academic Board in 2010 (Howell and Marks, 2010). The Plan brings Curtin University into line with the national careers agenda by promoting the use of the Blueprint as a framework for broad-based service delivery. Significant to this paper the Plan recommends Curtin:

- shared responsibility for all key stakeholders to be involved in the delivery of CDL;
- implements the Australian Blueprint of Career Development to ensure that all students have access to career services of the highest quality;
- progresses the agenda of embedding career development learning into the curriculum;
- identifies and develop new opportunities to improve student career development learning on an ongoing basis;
- conducts ongoing audits of how the various stakeholders are working together to deliver CDL to Curtin students; and
- recognises early intervention as critical to the success of CDL initiatives (Howell and Marks, 2010).

This Plan recognises WiL as one of many strategies for providing CDL opportunities for students. This commitment to multiple strategies and breadth of approach is constantly being negotiated within the University context. CDL is further supported by a range of initiatives across Curtin including the development of an online iPortfolio for students, a set of Graduate Attributes⁴⁷ linked to employability skills, and research into strategies to improve student retention, course satisfaction and

⁴⁷ For a list of the Graduate Attributes go to http://otl.curtin.edu.au/teaching_learning/attributes.cfm

Figure 1: The Elements of the Australian Blueprint for Career Development framework



overall university experience. These strategic directions help to facilitate faculty support for the CDL mapping project.

Role of the Office of Assessment, Teaching and Learning

The CDL mapping project emerged out of a natural synergy with the OATL. The OATL's curriculum mapping tool (Oliver et al. 2007a) provides evidence of where graduate attributes, measured as unit and course learning outcomes, are taught and assessed throughout the curriculum. Each unit within a course has a unit profile page which summarises the unit syllabus and shows how unit learning outcomes map to the course learning outcomes, assessments, learning experiences and resources.⁴⁸ As staff from OATL and the Centre began to collaborate, it became apparent that the curriculum map could be easily modified to indicate where CDL was occurring in the curriculum and thus ultimately to maximise opportunities to embed CDL in the course experience.⁴⁹

48 For a more detailed understanding of the curriculum mapping tool used at Curtin University please go to http://web.me.com/beverleyoliver1/benchmarking/Curriculum_mapping.html

49 Ferns, Taylor, Howell, Kosovich (forthcoming).

Justification for this project is strengthened by the results of student course evaluations collected by OATL which clearly indicate that graduates and students believe they would benefit from more practical work experience, more “real life” examples and assignments, more technology skills and more career guidance (Oliver et al (2007b, see also Law 1996). Employability skills and WiL are also embedded within Curtin’s Teaching and Learning Enabling Plan. Together these agendas provide opportunities for the Centre to become a valued contributor to curriculum development.

Work-Integrated-Learning (WiL)

Inclusion of WiL in courses has recently gained momentum, particularly where work placements, fieldwork or clinical placements have not been a traditional component of a course. Work both nationally (see Smith, Brooks, Litchenburg, McIlveen, Torjul and Tyler, 2009) and internationally (Watts, 2006) highlights how a student’s WiL experience can be strengthened by the incorporation of other forms of CDL. Watts (2008) notes that CDL significantly enhances the quality of WiL in its various formats, placing students more actively at the heart of such programs, and adding value to these experiences, by helping students to be career ready as well as work ready. Through reflective practice, CDL can bring clarity and insight to the WIL experience, which leads to greater student insight towards their preferred career future, appreciation of their studies and how learning is applied in the working world. Analysis of the curriculum map gives scope for extending or strengthening activities within the curriculum to enhance both CDL and WiL activities.

Faculty Involvement

Personal commitments to enhancing the career management skills of students by staff in teaching and/or leadership positions within the Faculty has been a key driver in the initial selection of courses to be mapped. The adoption of the CDL Plan across the university had been anticipated in advance of the mapping project beginning. Participation was viewed as an opportunity to shape the process and improving the outcomes for all stakeholders. Faculty acknowledge that CDL is not just about students achieving graduate employment, but also about the personal satisfaction of gaining employment with an *employer of choice*. Whilst recognising that within the current labour market, not all graduates can be selective, faculty believe that insight into preferred career futures can better position students to find employment which reflects their values. Hudson (2005) suggests that this may contribute to increased personal satisfaction and productivity in graduate and future positions. Staff also observed that the curriculum review process identified lifelong learning as one of the Curtin Graduate Attributes difficult to embed within the curriculum. Facilitating lifelong learning associated with CDL is one of the core priorities of the Centre, therefore positioning it to constructively contribute to the achievement of this learning outcome in the curriculum.

The two Health Science courses that were selected for CDL mapping were the Bachelor of Pharmacy and the Bachelor of Psychology. The School of Pharmacy became involved because of its strong commitment to providing career education for its students. Faculty viewed the mapping of existing CDL as a way of extending this component of the degree whilst also accessing different ideas, activities and resources. They believed that the process could lead to additional opportunities for students to develop broader occupational knowledge about the roles that pharmacists play within national and international health care system, and to expand their understandings of related economic, social and employment factors.

The School of Psychology and Speech Pathology addresses the career education needs of their students through initiatives such as Student Information Evenings and promotion of Careers Centre events and programs. Unlike many other health disciplines, Psychology students completing a bachelor degree are not eligible for professional registration upon graduation. Anecdotal evidence from the Centre, along with communication with Psychology lecturers, suggests that, because of this,

career pathways are not always obvious to students. Faculty believe that a positive outcome of the mapping process would be to facilitate student insight into the skills and knowledge developed throughout their degree and opportunities to apply it in future employment.

The following section outlines the five-stage collaborative process undertaken for mapping careers in the curriculum: 1) textual analysis of the existing curriculum maps; 2) identifying links between course and unit learning outcomes and the Blueprint competencies; 3) developing ideas to strengthen CDL in the curriculum; 4) discussion and clarification with faculty; and 5) implementing changes in the curriculum.

Mapping step 1: Textual analysis

The first step involved gaining an overview of the course through the textual analysis of each unit syllabus and the associated unit learning outcomes. Key words and themes were identified that may have potential links to one (or a number of) the eleven career management competencies from the Blueprint. Table 1 provides an example of the textual analysis from both courses.

The curriculum maps provided for the mapping of CDL provide limited detail about the true nature of the unit assessment, hence the need for clarification and discussion with course co-ordinator in mapping step 4.

Table 1: Textual Analysis (Mapping Step 1)

Course	Bachelor of Pharmacy	Bachelor of Psychology
Unit	Professional practice units Mainly third and fourth year	First year foundation units Increasingly in semester two third year and fourth year units
Key words, themes and phrases	Professional practice Applied communication skills and personal skills Role of the professional within the Australian health care context	Code of conduct Function of relevant professional associations Relevance of psychology to a variety of health professions Applied communication skills and personal skills Applied group work skills Lifelong learning Cultural sensitivity Vocational and career development Reflection Acknowledgement and recognition of your personal and others professional strengths and limitations.

Mapping step 2: Identifying links with the Blueprint competencies

Key words, themes and phrases were then used to identify the Blueprint competencies at phase four development level (adults). Consideration was then given to which stage of the learning taxonomy was being addressed. This is important as it reflects the depth of learning associated with the task.

Steps one and two provided a benchmark of where and how CDL was potentially embedded in units of study and therefore in the overall course curriculum. Conversely an overview of the competencies that were not currently being addressed, or those being addressed in a limited way was provided. Appendix 1 Table 1 illustrates a sample summary matrix of the baseline CDL. It provides a visual

overview of the frequency of CDL activities relevant to each competency in each unit of one course. Each occurrence of CDL is represented according to the taxonomy learning level to which it is pitched.

One of the challenges associated with this step is the difficulty in making direct links between the unit learning outcomes and the Blueprint competencies and expected learning taxonomy level.

Mapping step 3: Developing ideas to strengthen curriculum

The next step was to provide suggestions about where identified CDL activities relating to specific competencies could be strengthened. The main focus was to offer ideas that would require minimal (if any) change. This involved extending existing activities or proposing additional activities and aligning them to the learning outcomes, and where possible, to assessments.

By linking the Blueprint competencies to assessment it is possible to demonstrate student competence at the higher taxonomy levels of 'personalise' or 'act', rather than the more passive learning activity of attending a lecture, which would facilitate career development learning at the lower 'acquire' level. Creativity is essential in the development of additional ideas to ensure engaging learning experiences that will assist students to contextualise the learning outcomes as part of their CDL.

Faculty valued collaborative teaching with careers staff and the opportunity to access resources on specific CDL topics from the Centre. This strong relationship is essential for the delivery of successful CDL outcomes for students as seen within a four year pharmacy unit. To further enhance CDL within this unit, an additional requirement of a job application assessment could be a personal reflection of what had been learnt as a result of participating in the seminar (e.g. self marketing skills, transferable skills and knowledge/graduate attributes as they relate to employment opportunities, labour market considerations and developing their preferred career future or vision). Table 2 illustrates how potential further ideas for CDL were developed from an analysis of the syllabus, unit and course learning outcomes.

Mapping step 4: Discussion and clarification with faculty

Appointments were made with the key stakeholders in both Schools. This allowed career staff to gain a deeper understanding of the learning outcomes and the unit content, how these were delivered, the methodologies and technologies used and any other significant information about the unit. Ideas and opportunities to further strengthen existing curriculum and activities to address the competencies that were not currently being addressed or addressed in a limited capacity were also discussed.

For example, these discussions indicated that lifelong learning was addressed in depth within a Psychology of Learning unit, but that this was not explicitly stated on the curriculum map. Similar clarification was sought for the Bachelor of Pharmacy course. Through discussion of potential ideas, a greater understanding was achieved of some of the teaching tools used, such as the iPortfolio, and the philosophy of sustainable education where students are taught not just how to know, but how to care and how to act. Both of these tools align with CDL (M, Kinsella, personal communication, May 4, 2010).

Informed by these discussions the CDL curriculum map was updated and this document was then provided to the key stakeholders for discussion about the feasibility of implementing the new ideas, activities and assessments. These documents also included the summary matrixes (See Appendix 1) which compares the baseline level of Blueprint competencies and taxonomy level within the existing curriculum with the revised levels with suggested enhancements embedded.

Table 2: Unit CDL Map

1	2	3	4	5	6	7
Unit notes	Syllabus	Unit Learning Outcomes	Assessment	Course Learning Outcomes	Blueprint competencies and taxonomy level	Potential further ideas
<p>WIL- 30 days of practice placement. 7 hours per day in a community setting. Students participate in compulsory one day seminar on resume and cover letter preparation, selection criteria, interview skills, employability and labour market (including interactive activities). Half day workshop with industry professionals telling their stories of their careers. All students develop clinical placement objectives before commencing placement, with skills and knowledge sets they would like to develop. Placement</p>	<p>Dispensing services including extemporaneous dispensing, stock control, legal requirements of practice, professional conduct, storage of medicines and record systems. Management and Organisational skills. Applications of drug knowledge. Provision and promotion of primary health care, Drug information and patient counselling. Communication skills.</p>	<p>1, Integrate relevant drug knowledge in the community practice setting. 2, Assess a patient's health care needs and recommend appropriate treatment. 3, Retrieve and critically evaluate information and respond appropriately to medication and health-related enquiries. 4, Apply community business practices and principles. 5, Demonstrate effective verbal and written communication skills as applicable in community setting. 6, Work effectively in a community setting.</p>	<p>Workbook assignment (40%) (also includes job application assignment, cash handling skills, telephone etiquette) Oral assessment (30%) Practicum workplace assessment (30%) Job application assessment has student given one set position to tailor their cover letter, selection criteria resume to- worth 2.5% of total unit.</p>	<p>1, Apply extensive knowledge and expertise in the discipline and contribute to evidence based practice through scholarship. 3. Access and critically analyse and synthesise information drawn from relevant sources. 4, Communicate effectively with clients, colleagues, staff, other health care professionals and the general public in ways appropriate to the audience or situation. 9, Work and</p>	<p>1.4. Improve abilities to maintain a positive self concept (Act). 2.4 Improve abilities for building positive relationships in life and work (Act). 3.4. Developing strategies for responding positively to work and life changes (Acquire). 4.4 Participate in continuous learning supportive of career goals (Personalise). 5.4 Use career information effectively in the management of your career (Acquire). 6.4. Incorporate your understanding of changing economic, social and employment conditions into your career planning (Acquire). 7.4. Improve on your abilities to seek, create/obtain and</p>	<p>Student evaluation on placement, as linked to Curtin Graduate Attributes, employability skills framework and professional competencies. Evidence reported in iPortfolio (1.4 Act, 2.4. Act, 3.4 Act, 11.4 Apply). Students to participate in online discussion board, as part of practicum assessment to comment on how their Community placement has shaped their preferred career objectives (1.4 Personalise, 5.4 Personalise, 6.4 Personalise, 8.4 Personalise, 11.4 Personalise). Students to participate in online discussion board as part of workbook assignment</p>

<p>supervisor also provides feedback mid placement and at placement completion. Students participate in self reflection of progress mid placement based on supervisor feedback (not assessed by required) and creates goals to develop specific knowledge and skill sets by the completion of the placement.</p>				<p>collaborate effectively in a team and develop leadership skills in an ethical and professional manner.</p>	<p>maintain work (Act). 9.4. Incorporate life/work balance into the career building process (Apply). 10.4. Seek to eliminate gender bias and stereotypes in your career building (Act).</p>	<p>on how their participation in the two workshops/seminars has shaped their knowledge towards managing their future career (self marketing skills, transferable skills and knowledge/graduate attributes as they relate to employment opportunities, value of networking labour market considerations and developing their preferred career future or vision). (1.4. Personalise, 2.4. Personalise, 3.4. Apply, 5.4. Apply, 6.4. Personalise, 7.4. Personalise, 8.4. Personalise. 11.4 Personalise).</p>
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NOTES:

Column 1- Specific unit notes resulting from discussion with key stakeholders involved course are included in column 1. The syllabus statement is included in column 2 and a description of unit assessments in column 4. Unit learning outcomes (column 3) are mapped to the course learning outcomes (column 5) by faculty during curriculum development. Blueprint competencies and taxonomy level (column 6) represents an overall evaluation existing CDL within the unit. Column 7 shows potential further ideas resulting from this mapping process.

Mapping step 5: Implementing change

The CDL mapping process is cyclic in nature and is linked to curriculum review, which is undertaken approximately every five years. Unit syllabi and learning outcomes may be altered during curriculum review allowing for new and additional CDL initiatives to be implemented (or modified).

The mapping process has been timely in that 2011 will see the implementation of a new common first year curriculum for Health Sciences where five of nine units will be undertaken by first year students from all Schools. This change in curriculum presents challenges and opportunities for all undergraduate courses as they will need to review their current course and unit structure to complement and build upon common foundation units. This process provides an excellent opportunity to encourage the embedding of CDL within key first year units. The Centre will be working with the Faculty and will be involved in the mapping of CDL within the new common core curriculum. This participation is made possible by earlier involvement in the mapping process. As a result of the relationships established through the CDL mapping process, a Careers Development Consultant is an active member of the "Foundations of Professional Health" unit steering committee established to build the unit learning outcomes, syllabus and unit assessments, which will incorporate CDL.

The School of Pharmacy have demonstrated a creative approach to CDL in collaboration with the Centre with their final year students as part of Orientation week. They organised an interactive one-day compulsory seminar that addressed workplace etiquette, writing selection criteria, resumes and cover letters, interview skills as well as an address by the Curtin Careers Centre on the services offered, career decision-making, and labour market statistics. Additionally, this initiative strategically aligns to promote inter-professional education⁵⁰, which has strong links to CDL.

Within a third year Bachelor of Psychology unit the Centre has delivered CDL through a job application assignment. Students are required to find a suitable job advertisement (a position they could apply for currently, or at the completion of their four year degree, without registration) write an application and include a cover letter, resume and discussion of selection criteria). Appendix 2 outlines how the delivery of this unit in 2009 strengthened CDL within the assignment. Five reflection questions, based on Blueprint terminology, were added to assess the students' ability to manage the career building process. As a result of mapping CDL, this assessment piece has undergone further refinement for implementation in 2010.

Once the key stakeholder for each course had received the updated CDL mapping documentation, implementation was at their discretion. The time gap between mapping and implementation may be an issue, particularly if there was a staff change, where the personal commitment and strategic direction of the new stakeholder differed.

Discussion

Faculty engagement is essential to the success of the mapping project. Without Faculty acknowledgement of the importance of CDL within curriculum, the five step collaborative process could not proceed. A by-product of this process is that the Career Development Consultant has much stronger understanding of course and discipline knowledge, which will benefit students in career counselling and in delivering discipline specific workshops.

This initial mapping of careers in curriculum project has also highlighted a number of areas requiring further attention. These include the use of Blueprint terminology, the importance of Faculty support,

⁵⁰ Interprofessional Education in the health context involves building capabilities in three core areas: working collaboratively, client safety and quality, and client centred service (Brewer, 2010).

and the curriculum development experience, the role of both assessment and WiL as strategies for delivering CDL within curriculum.

Reframing the Blueprint terminology for a Higher Education Context

A common understanding of the Blueprint's competency definitions, taxonomy levels, and how this understanding will translate into activity and assessment in the curriculum needs to be developed. Stakeholders involved in the curriculum mapping process may interpret the competencies differently and for the process to be effectively implemented across courses in all faculty areas there needs to be a consistent approach to linking the key terms in course and unit learning outcomes in the first mapping step with specific competencies and taxonomy levels. Whilst the Blueprint does provide guidelines for the purpose of reviewing a career development course or curriculum, it is generic and currently does not meet the specific issues of curriculum development within the higher education sector.

Despite these issues, the five-step process of mapping CDL using the curriculum course mapping tool and Blueprint competencies is useful for embedding further CDL into curricula and enabling consideration of course specific accreditation and training requirements.

Curriculum development experience of career consultants

Career Development Consultants undertaking curriculum development activities do not necessarily have any formal experience of this task. Whilst not all academic staff have an education background, part of their induction into a teaching role involves professional development in curriculum development through the OATL. It is recommended that all Career Development Consultants involved in curriculum mapping undertake similar professional development activities.

Assessment

For career development competencies to be appropriately reflected in the curriculum, they must be attainable, demonstrable, assessable, and aligned with the unit learning outcomes. Linking CDL to assessment as part of step three of the mapping process is challenging and will take time and negotiation to be effectively implemented as part of a unit and/or course review for two reasons:

- Many assessments are essential to ensure the course meets professional accreditation guidelines, which reduces the scope for flexibility with assessment pieces.
- An additional assessment, or component to the existing assessment, would create unrealistic university timelines for unit amendments associated with academic course approval processes, increased student workload and an additional marking load for staff.

For example, as part of step four of the mapping process, the project leader suggested that first year students taking an Introductory Psychology unit might interview allied health professionals about the relevance of psychology in a variety of multidisciplinary settings. Further discussion with the staff revealed that the unit was a service taught⁵¹ unit with over 900 students. Such an assessment would therefore create an unreasonable demand on industry health professionals. A potential method to enable execution of this assessment would be to video five to ten industry professionals from each discipline within health sciences and use these recordings to inform the assessment requirements.

Developing assessments to measure achievement of a specific competency and taxonomy level can be challenging and require creativity, and innovation. The personal nature of some competencies and taxonomy levels means they may not be measurable or able to be assessed within the curriculum. Within the context of curriculum it would be difficult to assess competency eight which focuses on

51 Service taught units are designed for students across the faculty. For example a first year foundation unit that is delivered by the school in which the specific discipline is taught.

life/work balance at the 'act' level, as it relates to holistic perspective that reaches far beyond what can be achieved within curriculum.

An alternative option for assessing specific career development competencies would be through eVALUate or a similar system of evaluation of teaching and learning. This would be a rating scale capturing self reflection of the students' confidence or ability to meet this competency at the taxonomy level identified by the mapping process for the particular unit.

Conclusion

Whilst the mapping of CDL within a higher education curriculum is still in its infancy and the process has identified issues that need to be further investigated, it has many potential benefits for students, university and faculty strategic outcomes and graduate employers. The collaborative process allows for academic staff to develop a greater understanding and awareness of the services available through the Centre to assist both Faculty in their teaching roles and students with their learning outcomes. This has resulted in stronger awareness of assessment marking services for career development assignments; increased confidence for Centre staff delivering careers in the curriculum, and greater likelihood that faculty will refer students for career counselling services. A by-product of this engagement is that faculty are also willing to promote extra-curricular programs and events being run through the Centre. Building these relationships is paramount for the effective delivery of CDL in university settings.

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Appendix 1

Table 1: Baseline CDL- As shown through the Australian Blueprint for Career Development

Baseline CDL data	Note 0302= Year 3 semester 2 of study										
Blueprint Competency	1.4	2.4	3.4	4.4	5.4	6.4	7.4	8.4	9.4	10.4	11.4
Unit 1/0101		Acquire			Acquire						
Unit 2/0101		Acquire		Acquire	Acquire					Acquire	
Unit 3/0101											
Unit 4/0101		Acquire			Acquire					Acquire	
Unit 5/0102											
Unit 6/0102	Apply	Apply			Acquire			Acquire		Acquire	
Unit 7/0102											
Unit 8/0201											
Unit 9/0201											
Unit 10/0201				Personalise							
Unit 11/0202											
Unit 12/0202		Personalise			Apply			Acquire	Acquire		
Unit 13/0202											
Unit 14/0301											
Unit 15/0301											
Unit 16/0301											
Unit 17/0301											
Unit 18/0302											
Unit 19/0302	Personalise				Personalise		Acquire				
Unit 20/0302	Act	Act	Act	Personalise	Act	Personalise	Act	Personalise	Personalise	Personalise	
Unit 21/0302		Apply	Apply			Apply				Apply	
Unit 22/0401											
Unit 23/0401											
Unit 24/0401	Act	Act			Act					Act	
Unit 25/0402				Personalise	Acquire					Personalise	
Unit 26/0402											
Unit 27/0402											

Table 2: CDL competency and taxonomy levels through the strengthening of current or implementation of further ideas

Implementation of further CDL activities	1.4	2.4	3.4	4.4	5.4	6.4	7.4	8.4	9.4	10.4	11.4
Blueprint competencies											
Unit 1/0101		Acquire			Acquire						
Unit 2/0101	Personalise	Act		Personalise	Acquire					Acquire	
Unit 3/0101											
Unit 4/0101		Personalise			Acquire		Personalise			Acquire	
Unit 5/0102											
Unit 6/0102	Apply	Apply			Personalise			Personalise			Acquire
Unit 7/0102											
Unit 8/0201											
Unit 9/0201											
Unit 10/0201				Act							
Unit 11/0202											
Unit 12/0202		Personalise	Personalise		Apply			Acquire	Personalise		
Unit 13/0202											
Unit 14/0301											
Unit 15/0301											
Unit 16/0301											
Unit 17/0301											
Unit 18/0302											
Unit 19/0302	Personalise				Personalise		Act				Personalise
Unit 20/0302	Act	Act	Act	Personalise	Act	Personalise	Act	Personalise	Personalise	Personalise	Personalise
Unit 21/0302		Apply	Personalise			Apply				Apply	
Unit 22/0401											
Unit 23/0401											
Unit 24/0401	Act	Act			Act			Personalise		Act	
Unit 25/0402				Personalise	Acquire					Personalise	Act
Unit 26/0402											
Unit 27/0402											

NOTES:

Specific unit notes resulting from discussion with key stakeholders involved course are included in column 1. The syllabus statement is included in column 2 and a description of unit assessments in column 4. Unit learning outcomes (column 3) are mapped to the course learning outcomes (column 5) by faculty during curriculum development. Blueprint competencies and taxonomy level (column 6) represents an overall evaluation existing CDL within the unit. Column 7 shows potential further ideas resulting from this mapping process.

Appendix 2: Reflection Activities

Example of reflection questions as part of Job application assignment.

Answer the following questions to reflect on what you have learnt as part of completing this Mock Job Application assessment.

Reflection question	Blueprint competency and taxonomy level
What technical or discipline specific knowledge and skills have you developed through study, employment, volunteer/community work, work experience and other work/life roles?	1.4. Improve abilities to maintain a positive self concept (Personalise). 2.4. Improve abilities for building positive relationships in life and work (Apply).
What transferable knowledge, skills and attitudes have you developed through study, employment, volunteer/community work, work experience and other work/life roles?	1.4. Improve abilities to maintain a positive self concept (Personalise). 2.4. Improve abilities for building positive relationships in life and work (Apply). 7.4. Improve on your abilities to seek, create/obtain and maintain work. (Apply). 10.4. Seek to eliminate gender bias and stereotypes in your career building (Apply).
What processes have you used to investigate specific work opportunities that support your desired career intentions?	2.4. Improve abilities for building positive relationships in life and work (Personalise). 5.4. Use career information effectively in the management of your career (Personalise). 7.4. Improve on your abilities to seek, create/obtain and maintain work. (Act).
What strategies would you use to assess a work opportunity that supports your future career goals?	3.4. Develop strategies for responding positively to life and work changes (Personalise). 5.4. Use career information effectively in the management of your career (Personalise). 6.4. Incorporate your understanding of changing economic, social and employment conditions into your career planning. (Personalise). 8.4. Incorporate realism into your career decision making (Personalise). 9.4. Incorporate work/life balance into the career building process (Personalise). 10.4. Seek to eliminate gender bias and stereotypes in your career building (Personalise). 11.4. Manage your career building process (Apply).

<p>Can you identify any specific knowledge, skill or experience sets that you will need to acquire or further develop, in order for your to effectively seek, obtain/create or maintain work in terms of your preferred career future?</p>	<p>1.4. Improve abilities to maintain a positive self concept (Personalise). 2.4. Improve abilities for building positive relationships in life and work (Personalise). 3.4. Develop strategies for responding positively to life and work changes (Act). 4.4. Participate in continuous learning supportive of career goals (Personalise). 5.4. Use career information effectively in the management of your career (Act). 7.4. Improve on your abilities to seek, create/obtain and maintain work. (Personalise) 11.4. Manager your career building process (Personalise).</p>
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E - Portfolios as a means of assessing WIL in the Graduate Diploma of Education

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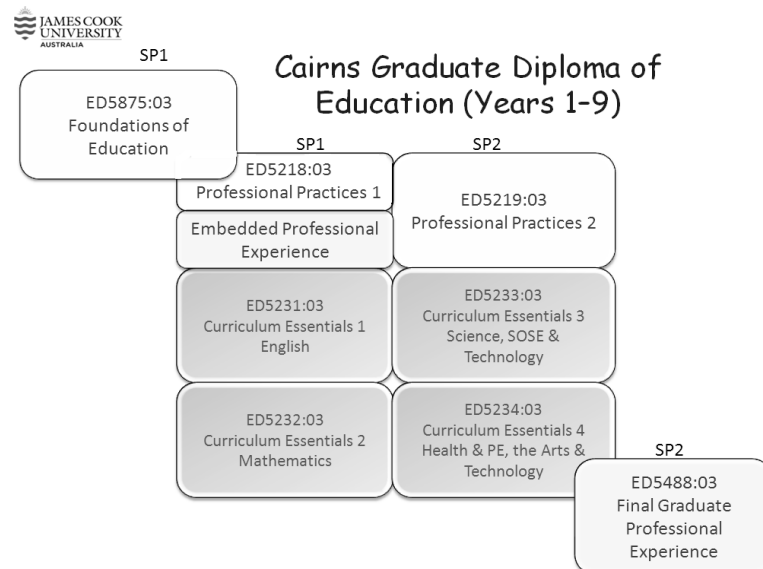
Although several Australian Schools of Education have embedded types of work-integrated learning (WIL) in their courses for a number of years (Patrick et al. 2008), more recent issues around employability, insufficient interaction between university and industry, and need for engagement and blending of academic learning with workplace experience (Goulter, 2007) has led to a growth in WIL or industry-based learning. This paper presents the process a team of lecturers undertook to connect and assess university and professional experiences within the Graduate Diploma of Education. Guided by the Innovative Research Universities WIL principles (2008) of policy, pedagogy and curriculum issues, and partnerships; Billett's (2009) notion of *criticality* in WIL; and Zeichner's (2010) *hybrid* spaces, we created innovative assessment, and embedded the e-portfolio as an authentic learning and assessment task to capture WIL and evidence of transformative learning in the university and professional experience assessment. We were also interested in the portability of the e-Portfolio for graduate employment applications.

Keywords: WIL, assessment, e-Portfolio, standards

Introduction

The establishment of the one-year Graduate Diploma of Education (Years 1-9) course at the Cairns Campus of James Cook University (JCU) since 2006 has been intense, exciting and challenging. The course itself is innovative in promoting learning and teaching across the traditional primary and middle years. It has been structured under the key organisers of core professional practice subjects, core curriculum subjects and professional experience (practicum in schools) (see Figure 1). A decision was made in 2008 to restructure the one-year Graduate Diploma of Education course in light of the current movements towards canonical knowledge and skills (Billett, 2009) in English, Mathematics and Science in primary and middle years of teaching due to National Curriculum developments and political pressures about quality of teachers. Hence, the Graduate Diploma of Education course explicitly targets English and Mathematics as priority in study period one but also frames the study period two curriculum essentials subjects for more purposeful integration of literacy and numeracy.

Figure 1: Graduate Diploma of Education (Years 1-9) Course Organisation



The Queensland College of Education (QCT) is the accreditation body for all teacher education courses in Queensland and is responsible for registration of teachers. In December, 2006, the QCT released *Professional Standards for Queensland Teachers* (QCT, 2006) – both at the graduate and continuing levels. Graduate professional standards have been written to demonstrate emerging development of the standards and these are of most concern to the Graduate Diploma of Education course. The School of Education has undertaken Phase 1 accreditation in providing evidence of alignment with the Professional Standards and is currently preparing for Phase 2 accreditation. The QCT (2009) response to the Masters’ report (2009) suggests an extension a Graduate Diploma of Education to four semesters – a potential future challenge.

Zeichner (2010) has indicated that such revisions, pressures and accreditation processes are likely to hinder the quality of teacher education. On the other hand we saw these constraints as an opportunity for new possibilities and innovation in the design of a more relevant and connected curriculum in the Graduate Diploma of Education. In light of contemporary literature about authentic assessment (Herrington, Reeves, Oliver & Woo, 2004; Herrington, Reeves & Oliver, 2007), standards (QCT, 2006; AUQA, 2009a, 2009b), e-Assessment and e-Portfolio (Klenowski, Askew & Carnell, 2006; Penny & Kinslow, 2006; Boyle & Hutchinson, 2009; Crisp, 2009), and WIL (James Cook University, 2008; Patrick et al, 2008; Billett 2009) we sought to connect university and professional experience learning and assessment. Zeichner (2010, p. 95) also called for *hybrid spaces* in teacher education “where different aspects of expertise that exist in schools and communities are brought into teacher education and coexist on a more equal plane with academic knowledge”. He sees this as boundary spanning, more than just a valuing of knowledge in each space but a purposeful creation of activities and experiences where academic and professional knowledge are developed, integrated and critiqued.

For our purposes, the e-Portfolio became the instrument to cross the boundaries not only in university and professional experience practices but also extending into employability. For example, students were required to design a quality Health and Physical Education assessment task and rubric in ED5234: Curriculum Essentials 4, and whilst on practicum, students created and implemented quality assessment tasks and rubrics in other discipline areas. Students were able to select university and/or professional experience tasks to upload, expand on and analyse their attainment of *QCT 5: Assess and report constructively on student learning* in the e-Portfolio. This evidence and analysis was not limited to university assessment but was also worthwhile for employment applications. Hence the intent of WIL was taken to a deeper level of engagement.

Principles for best practice in implementing and managing WIL, as outlined by the Innovative Research Universities (IRU, 2008, pp. 1-4), of which James Cook University (JCU) is a member, guided the revision of curriculum and assessment tasks, selection and embedding of the e-portfolio and input from partners (students, lecturers, advisory committee members). The principles include:

- **Policy** (positioning WIL in higher education, staffing, resources and capacity-building);
- **Pedagogy and curriculum issues** (embedding WIL in the curriculum, preparation for WIL, assessment); and
- **Partnerships** (engaging and informing WIL partners, relationship management).

These three principles frame our paper outlining the processes undertaken to connect university and professional experience learning, teaching and assessment.

Policy

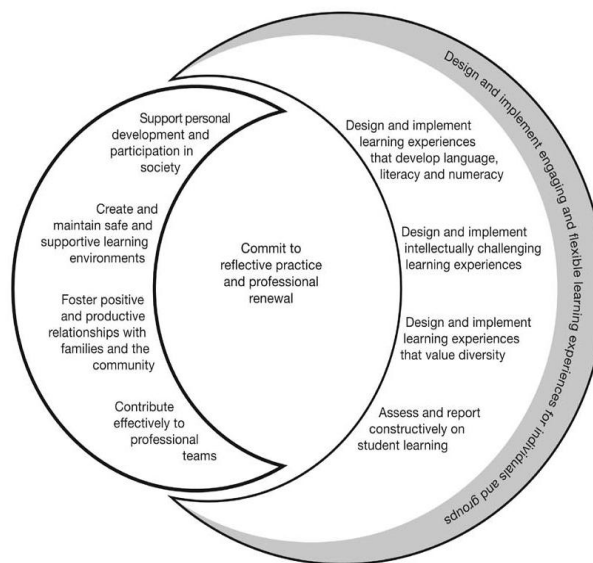
Policy usually refers to a course of action selected by relevant bodies (university, accreditation body) to guide present and future decisions and actions. For WIL this might include its positioning of WIL in the university, a definition, quality assurance processes, staffing, resources and capacity-building (IRU, 2008). However, as the Graduate Diploma of Education is classified as a professional program, the QCT professional standards and processes for accreditation are also relevant. Furthermore, assessment of student achievement in the professional program will also need to align with the university assessment policy and practices.

We decided to first consider JCU's WIL policy and applicability of that definition to our project. JCU (2008) describes WIL as a "generic term used to describe a range of courses which provide students with a combination of workplace experience and formal learning which are integrated as part of a course of study in higher education". The WIL Report (Patrick et al, 2008, p. v) uses a similar definition but adds "...work within a purposefully designed curriculum". At JCU the following statement has been added to clarify the designs a curriculum may take: "At JCU we could like to broaden the thinking around WIL...These include career development and management, the embedding of graduate attributes within the curriculum subjects and opportunities for engagement with the community". However with our agenda of connecting university and professional experiences, and career development, we have chosen to adopt Billett's (2009, p.v) definition as it requires a deeper engagement by students in their learning. According to Billett, "WIL refers to the process whereby students come to learn from experiences in educational and practice settings and integrate the contributions of those experiences in developing the understandings, procedures and dispositions required for effective professional practice, including criticality". Key here is the element of criticality. For our course this is embedded in the alignment of experience (university and/or school based), the QCT professional standards and transformative analysis evidenced in the e-Portfolio assessment tasks. In particular, *QCT professional standard 10: Commit to reflective practice and professional renewal* calls for criticality in understandings, procedures and dispositions.

Several Schools of Education in Australia have embedded types of WIL in their courses for a number of years (Patrick et al. 2008), usually in the form of professional experience (practicum in schools). As a professional program in higher education, teacher education is required by the accreditation body (QCT) to provide for practicum in schools (for example, 75 days in a one-year degree). During these professional experiences students are to provide evidence on their attainment of the professional standards (QCT, 2006; see Figure 2). For example, it is common for the final professional experience report to contain all 10 professional standards and be graded at unsatisfactory/satisfactory/highly satisfactory. At the same time, university subjects demonstrate how content and assessment provide opportunity for students to evidence the professional standards.

Figure 2: Queensland College of Teachers' Professional Standards (2006)

Professional Standards For Queensland Teachers



However, as per Zeichner’s (2010) *hybrid spaces* commentary it is relevant to reconsider WIL particular to need for engagement and blending of academic learning with workplace experience (Goulter, 2007). This blending and boundary spanning must also align with the university assessment policy re the format, timing, weighting, invigilation and moderation (JCU, 2010),

Further, the IRU asks for consideration of resourcing and staffing. Resourcing any WIL program requires great intensity and productive relationships with partners (students, teachers, lecturers, coordinators). For teacher education we are reliant on offers of placements from schools, Professional Experience Coordinators at each school site, and Graduate Diploma of Education Coordinator time to support to the operational aspects and quality assurance. Staffing also includes the lecturers of all Graduate Diploma of Education subjects for collaborative planning meetings, moderation, and in liaison roles with school sites. Due to the selection of the e-Portfolio we were also reliant JCU’s CareerHub’s selected software providing students with an e-Portfolio template. JCU CareerHub (JCU, 2009) suggested that students use the e-portfolio as “a digital collection of information, evidence and examples of your interests, skills and achievements and your reflections on these over time, from which you can publish presentations for different audiences.” However, due to the focus on *hybrid spaces* and *criticality*, rather than a collection of material, the e-Portfolio builds “self-understanding” and develops “capacity for reflective practice” (JCU, 2009) (see pedagogy and curriculum issues section for an expansion on this). The focus is equally on presentation of material to potential employers, and a learning tool, where Graduate Diploma of Education students use the e-Portfolio for “deeper engagement with learning experiences and a greater capacity to articulate and showcase your potential to others” (JCU, 2009).

Whilst all of these aspects of policy can be interpreted as capacity-building we have experienced many limitations. Lecturer and teacher time and effort for collaborative planning and moderation, intensity of a one-year program for students, difficulty of securing school placements, plus, inflexibility of e-Portfolio software (limitations to file size, site maintenance as it is not the responsibility of JCU’s teaching and learning section) have caused disruptions to the creation of *hybrid spaces* in our Graduate Diploma of Education course.

Pedagogy and curriculum issues

Of greatest policy impact for pedagogy and curriculum issues was *criticality* (Billett, 2009) – creating learning and assessment spaces that provide a depth of understandings, procedures and dispositions as required by the QCT professional standards (2006). The IRU principle (2008) considers processes to embed WIL in the course curriculum, preparation strategies to ensure effectiveness of the WIL experience and design of assessment that is defined according to learning outcomes, protocols with industry partners (in our case teachers in schools), and assessment that is negotiated between industry (schools), university needs and student needs. We commenced our focus on pedagogy and curriculum issues by mapping assessment genres and targeted professional standards across 8 subjects of the Graduate Diploma of Education course; creating innovative assessment tasks that connected university and professional experiences; and, embedding the e-Portfolio as an authentic learning and assessment task to capture WIL and evidence of transformative learning in both university and professional experience assessment. As a team we were also interested in the portability of the e-Portfolio for not only linking university and professional experiences, but also for graduate employment applications.

Our team’s collaborative decision-making involved subject mapping to systematically plan for repeated opportunities (minimum of 3) for Graduate Diploma of Education students. Our intent was to engage with the professional standards through assessment tasks, for a balanced focus within and across all 8 subjects, against all 10 professional standards. Table 1 shows an extract from the mapping of all subjects against 3 professional standards.

Table 1: Extract from ‘Planning process to address QCT Professional Standards in Graduate Diploma of Education Course’

Subjects coded as:	Standard 5	Standard 6	Standard 7
Professional Experience Professional Practices Subjects Curriculum Subjects (Refer to Figure 1)	Assess and report constructively on student learning	Support personal development and participation in society	Create and maintain safe and supportive learning environments
ED5488	√	√	√
ED5218			√
ED5219	√	√	
ED5875			√
ED5231			
ED5232			√
ED5233			
ED5234	√	√	

All assessment tasks were reviewed to ensure blending of academic learning, authentic assessment characteristics (Herrington, Oliver & Reeves, 2007), professional standards and criticality, and that a range of assessment types was maintained. Further, we reconsidered the traditional paper-based professional portfolio with a revised focus on an e-assessment situated task (Boyle & Hutchinson, 2009) in the core professional practices subjects, ED5218 and ED5219. The e-Portfolio created new possibilities of archiving evidence digitally including authentic material, for example, a video of a lesson’s activities and reflection. Further, embedded throughout the QCT professional standards are use of Information and Communication Technologies (ICT), consequently an e-Portfolio assessment task required students to engage in digitally-based learning.

e-Portfolios have the potential to bring together the usually separate classification of assessment portfolios, employment portfolios and learning portfolios (Penny & Kinslow, 2006). Barrett and Wikeson (2004) too sees that e-Portfolios make learning visible by presenting a “digital archive of learner’s work...using the learner’s authentic voice” that can satisfy needs for university accountability and deep learning. In our case the e-Portfolio served an extended role of collecting and presenting evidence to apply for future employment. For Study Period 1, students addressed the professional standards of 1, 4, 6, 7 and 10. For study period 2, professional standards 2, 3, 5, 8, 9 and 10 were addressed. Standard 10 targets reflective practice (criticality) and is assessed in both study periods. All subject assessment tasks could be utilised as part of the evidence-base for the e-Portfolio, based on student’s own selection. Further, rubrics to assess the e-Portfolio and the subject calendar were developed to outline explicit alignment with the QCT professional standards in weekly activities and in task-specific criteria.

To avoid promotion of a collection or scrapbook portfolio, and following Klenowski, Askew & Carnell’s (2006) call for more clarity around purpose, learning approaches and processes for continued development, the define/describe/analyse/transform (DDAT) structure was devised (Hickey, 2010). The intended purpose of the structure was to make visible students’ learning and transformative practice across the one-year course. Particular to this course, students have been successful in attaining a university degree, had a career, and within one year of study are to transform their understandings, procedures and dispositions (Billett, 2009) to those required for quality teaching. The DDAT structure facilitates development of higher order capabilities in layering towards critical reflection or Billett’s (2009) criticality in WIL mentioned earlier. Nash and Sacre (2009), who implemented the e-Portfolio in the professional nursing course highlighted the need for a structure to promote deep learning due to their trial resulting in a ‘scrapbook’ of evidence rather than an analytical or transformative approach. A description of the DDAT structure is presented in Table 2.

Table 2: Define/Describe/Analyse/Transform structure for e-Portfolio statement using QCT professional standards

Section	Structure
Definition	Examine the Professional Standard and explain its key terms, show you understand what it means, why it’s important to today’s quality teachers, explain its purpose and importance.
Description	Describe an experience (e.g., challenge, event, situation, observation, and reading from a journal, textbook chapter, lecture or workshop, assessment task, an incident, an anecdote) that supported your professional growth.
Analysis	Analyse this experience and demonstrate what you learned, cover a range of possible responses, compare and contrast models or theories, demonstrate your critical understanding of what you are learning about quality teaching, analyse by comparing the experience to current state, federal or school policies or justifying through links to literature presented in university subjects, and/or examine the magnitude of the problem or event or issue.
Transformation	Demonstrate your professional growth and how your skills and understandings have changed as a result of the analysis. This might include the impact of the experience on you and how you will teach differently in the future, how your beliefs have altered, changes in your values, knowledge, skills or understandings, practices or approaches, effect on professional practice, changes in pedagogy, assessment, or planning, anecdote of successful change, personal development strategy.

The DDAT structure calls for students' authentic voice, gives them space to reason and be challenged, to be unsuccessful and insecure, and show analysis, to justify possible new actions, and to celebrate and demonstrate growing sophistication of their pedagogies. It focuses on development, learning and reflection in the required professional standards. We have included an extract of the structure and depth in analysis and transformation relative to QCT Professional Standard 6.

Table 3: Graduate Student e-Portfolio for QCT Professional Standard 6

QCT 6: Support personal development and participation in society	
Definition	This standard relates to the importance of engaging students authentically. By drawing on individual's interests and skill areas and valuing their unique perspectives, a class culture can be developed which prioritises learning, active involvement and confidence building. I will provide students with opportunities and encourage them to take risks while exploring the curriculum; this will in turn support their personal development and enhance their appetite for further learning and success as future citizens.
Description	<p>An intention of The Melbourne Declaration on Educational Goals for Young Australians (2008) is to create individuals who are successful learners, confident and creative individuals and active and informed citizens (MCEETYA, 2008, p. 9). This policy document recommends skilling students in the use of digital media and social interaction. Interestingly, my group of students had previously received minimal exposure to technologies within the classroom and also experienced difficulty working in groups.</p> <p>Brady and Kennedy (2007) make the suggestion that the current generation of students are able to be engaged through the effective use of ICTs in classrooms. I explored this idea by running a whole-class discussion regarding ICT use by students. The majority of students reported to access the internet almost daily, either from their home, a friends home or at library services. They predominantly use it for interactive games (Club Penguin, Moshi Monsters) and to send emails. A few students in the class access the internet for personal and assignment based research. An overwhelming majority of students utilise a wide range of technology within their social groups (internet, digital cameras, computers, DS, Playstation 2, Wii, television, DVD players, video cameras, MP3 players). It became apparent that the use of ICTs is prominent in this age group and also plays a major role in social interactions.</p> <p>To explore the concept of supporting students' personal development, I conducted lessons on the schools' Social Skill of the Week and provided strategies for their implementation, yet despite this, students within my classroom remained focussed on negative behaviours of other students, with a predominance of "dobbing" and argumentative conversations. I was eager to run some group based activities however realised that this would be difficult without further explicit teaching on the topic of team work.</p>
Analysis	As a result of my investigation, I decided to implement the use of ICTs into my classroom in the hope that learners would become more engaged in their activities. The introduction occurred by using a data projector and laptop computer to teach a lesson on "How to make a table using Microsoft Word" (Standard Six, Evidence One, How to make a table). I significantly underestimated the impact that using these technologies would have on the engagement levels of my students. They were captivated from the outset and eager to be involved in the lesson, so much so that behaviour management was not required. The extent of their response was such that I am now convinced of the value of using technology in the classroom and will endeavour to integrate it in a variety of ways. Namely as a "tuning in" strategy at the

commencement of lessons and also to display interactive educational resources. I also taught a lesson called Introduction to Team Work prior to engagement in a group based card-sort activity. Students were required to brainstorm observable behaviours which would reflect good team work (Standard Six, Evidence Two, Photographs 1 and 2). This set the tone for the group activity which followed and while not immediately successful, provided a frame of reference for myself to refer and encourage students to reflect on their behaviour and its consequences. Improvement was eventually observable and such pride was shown by my students when a teacher from a neighbouring class complimented them on their group work. At the conclusion of the lesson, students were required to complete the Learner Feedback Surveys prompting them to develop skills of reflection and critical assessment of learning (Standard Six, Evidence Three, Learner Feedback Surveys).

Transformation I am keen to access ICTs more frequently in the future as I have observed the potential they have to impact positively on the learning environment. I will more actively seek opportunities to use technologies such as the internet and Smartboard to connect students to the world beyond the school. By promoting team values and creating a strong class culture where expectations are clear, I will engage students and help them to feel supported in their learning. I will utilise video recording devices (with permission) to create films of students working in groups, which can then be reviewed by the class to identify areas of competency and areas for improvement. These films can be kept as records to compare with performance later in the term. I would also like to use this technology to film students reading aloud, encourage them to make notes for improvement and then refilm at the end term and once again compare performances. These could be used as evidence of improvement for students and in three way interviews.

References: Brady, L., & Kennedy, K. (2008). Curriculum Construction (3rd edn) Frenchs Forrest, NSW, Australia: Pearson.
The Melbourne Declaration on Educational Goals for Young Australians (2008) Ministerial Council on Education, Employment, Training and Youth Affairs.

Evidence: 1. How to make a table!
2. Photograph 1: See and Hear T-chart; Photograph 2: Students working in teams
3. Learner Feedback Surveys

Work samples: Standard 6 Evidence Piece 1 (20 KB)
Standard 6 Evidence Piece 2 (289 KB)
Standard 6 Evidence Piece 3 (466 KB)
Standard 6 Evidence Piece 3_2 (754 KB)

What is evident in this e-Portfolio entry is the student gaining professional identity, a re-invention of practices, and a sophistication of understandings, procedures and dispositions situated in school culture.

In addition, the e-Portfolio demonstrates transformative practice because it is a cohesive strategy. Graduate Diploma of Education students are exposed to information from multiple lecturers, multiple subjects and assessment tasks, plus multiple Supervising Teachers during two school-based experiences, and policy documents. The e-Portfolio reduces course fragmentation as it brings together in one learning space the disparate components of the Graduate Diploma of Education course. It is also evident that this e-Portfolio is portable. It can be moved or adapted for use in career development and employment applications. The e-Portfolio is a valuable product for presentation of individual development and analysis across time and space (multiple schools, university, life experiences).

Partnerships

Partnerships are central to the effectiveness of WIL. Partners directly involved in the Graduate Diploma of Education course include students, lecturers and teachers (in schools and as members of our Professional Experience Advisory Committee [PEAC]). The IRU (2008) principle raises the sub-topics of engaging and informing WIL partners and relationship management. Due to our added interest in portability of the e-portfolio for career development we must also consider partnerships with employing authorities and consideration of their specific guidelines. Consultation with partners to establish *hybrid spaces* and ensure *criticality* took a variety of forms. Such strategies included university staff collaborative planning days (pre and post study period) sometimes involving across campus staff, Graduate Diploma of Education Coordinator meetings with teachers at school placements that involved sharing of university assessment task samples and discussions re consistency of judgment of professional standards, informal and formal student feedback on subjects and assessment, plus agenda items for discussion at our PEAC meetings and collecting of evolving feedback via interviews.

Feedback received via these partner strategies suggests positive support for the assessment task revision and embedding of the e-Portfolio to capture WIL and evidence of transformative learning in the university and professional experience assessment. Comments on the developmental nature and criticality are evident. A PEAC member valued the e-Portfolio task as it serves as “a description of our work, what we value and having evidence to support that, shows that you have been on that journey.” According to another PEAC member, he was “impressed with the depth of the thought processes and the engagement that the Graduate Diploma of Education students have to have, to understand rather than to just learn the Standards”, as facilitated by the e-Portfolio task.

Further, a PEAC member felt that, given its focus on “practice and how it evolves” over time, the e-Portfolio positions Graduate Diploma of Education students at “the coal face”. Indeed, this member accentuated the very purpose of WIL. The immediate relevance of the e-Portfolio is also evidenced in the following observation from a Graduate Diploma of Education student:

I could reflect on the prac and see how many of the things that were happening every day in the classroom, in the environment of the school, working collectively with colleagues...were actually linked.

For her, the e-Portfolio made “perfect sense.” She also highlighted the capacity of the e-Portfolio to serve as a “good method to build your planning.” When presenting her experience of the e-Portfolio at a PEAC meeting, she described how her planning in her first practicum was informed by deep consideration of the standards in order to meet the needs of students “whose abilities were so low and who didn’t know how to interact”. In particular, she felt that review of knowledge and practice of standards pertaining to the valuing of diversity and promotion of language, literacy and numeracy (QCT, 2006) allowed her to better design experiences for the students to participate in “non-threatening ways.”

Another Graduate Diploma of Education student viewed the e-Portfolio as “a learning tool”—assessment for learning—one that she said “scaffolds me towards becoming a better teacher.” According to a lecturer in the course, it is the e-Portfolio’s transformation component which is instrumental in shaping pedagogy. The lecturer stated that this component is “future looking”, requiring Graduate Diploma of Education students to identify implications for practice by asking questions such as, “How can I use this experience to improve my teaching, to change my strategies, to rethink where I am going?” A PEAC member saw this level of integration of Professional Experience within a university assessment task as especially beneficial in the one-year intensive Graduate Diploma course, saying that:

I suppose here is the big criticism with Dip Eds, 'It never prepared me for the real classroom'. Part of that is because you can't do as long a prac as you would like to. You are limited to those certain number of weeks. So I guess the idea of getting as much as you can out of those weeks from the rest of university by really integrating it as closely as possible has to be a good thing.

With reference to portability of the e-portfolio and career development, a PEAC member stated that the interview process would be enhanced by "those sort of substantial conversations around the artefacts and the processes" bringing to the fore the "reflective process that we don't normally get to see in an interview situation." The e-Portfolio could provide interviewers with opportunity to ask deeper questions regarding selection and quality of evidence.

Adaptations to our course were identified from feedback. Students prioritise use of their practicum experiences for collection of evidence in the e-Portfolio. This valuing of professional experience over university tasks is reinforced by employers. Further investigation about the visibility or explicitness of authentic learning and assessment and demonstration of QCT standards is necessary to enhance WIL approaches. A future adaptation of the planning process and use of e-Portfolio was raised by a PEAC member in acknowledging its transferability to the four-year Bachelor pre-service course stating that "getting students to focus and to reflect on their practice has got to be invaluable, at any level." This is one of our intentions but there is need for review and edits in this planning process before attaining an additional function.

Summary

This paper presents a purposefully designed course curriculum and assessment whereby "students come to learn from experiences in educational and practice settings and integrate the contributions of those experiences in developing the understandings, procedures and dispositions required for effective professional practice, including criticality" (Billett, 2009, p. v). The Graduate Diploma of Education has attempted to create *hybrid spaces* (Zeichner, 2010) informed by the QCT professional standards (QCT, 2006), to blend academic and workplace knowledge and learning. The deliberate selection of an e-Portfolio as the key instrument to capture WIL and provide evidence of transformative learning has spanned boundaries but with further potential for career development.

However our course feedback suggests some gaps in policy, pedagogy and curriculum issues, and partnerships (IRU, 2009). Focus areas include clarity regarding value of both university and professional experience activities and events, resourcing and staffing issues, and limitations to continuing to engage partners. These will inform our future work.

Most importantly, the define/describe/analyse/transform (DDAT) structure in the e-Portfolio has enacted the 'criticality' edge called for by Billett (2009) in producing deep and transformative learning. Student samples of the e-Portfolio and interview data suggests students' abilities to retain, reconstruct, engage and build on learnt concepts and content (Biggs, 2002, Crisp, 2008).

The e-Portfolio has much potential for WIL programs. Our work has demonstrated that via careful planning the e-Portfolio merges the usually separate classifications of assessment portfolios, employment portfolios and learning portfolios (Penny & Kinslow, 2006) by generating process and product (Bloomfield, 2009). For the Graduate Diploma of Education, the e-Portfolio is *valuable as a process* for learning and assessment of understandings, procedures and dispositions for quality teaching. It is also *valuable as a product* as it transcends the university limited value to employment and career development possibilities.

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Student Rovers in the Learning Commons: Facilitating places for learner engagement

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Victoria University's current student cohort is both diverse and disadvantaged, with over 80% either engaged in or looking for part-time work. In this context, student peer mentors—Student Rovers—are employed and deployed across three Learning Commons as a strategy for providing 'just-in-time' and 'just-in-place' learning support to other students. The program was established as a potential means for engaging Student Rovers in learning to learn while also learning to work, as well as for fostering and facilitating student engagement in campus life. An evaluative research project is currently under way to evaluate the effectiveness of the Student Rover program with regard to a number of interrelated and overlapping areas of concern.

As a result of the complex nature of our multiple areas of concern and research questions, the study is being conducted using a pragmatic parallel mixed-methods design arising from within a pragmatic evaluative research framework. Adopting a 'mosaic' approach as advocated by Kalikoff (2001), the study draws on elements of action research, ethnography and both qualitative and quantitative methods. The evaluation is ongoing and therefore the initial issues raised in this preliminary discussion paper will be based on interviews with staff members and reflective reports written by Student Rovers. Other data collection activities are currently under way, which it is hoped will further develop and contribute to the initial discussion points presented in this paper.

In the context of VU's current student cohort, the benefits of an on-campus employment program such as this for students learning to learn, learning to work and, importantly, engaging in campus life will be discussed. Preliminary data from the research project will be presented as the basis for several initial discussion points; it will be proposed that the Student Rover program may prove a potentially successful strategy for engaging students in campus life and for preparing students for successful negotiation in contemporary organisational circumstances of change, complexity and contingency.

Keywords: Liquid Modernity, Engagement, Transition, Learningful Work, Learning to Learn, Student Rovers, Learning Commons.

Introduction

In 2006, Victoria University (VU) initiated the Student Rover program, an on-campus, work-based program in which students are employed to provide 'just-in-time' and 'just-in-place' learning support to other students in the university's Learning Commons. As a multi-sectoral institution in the Western region of Melbourne, VU offers courses and training from Certificate I to PhD level (Keating & Gabb, 2005). A recent VU study found that over 50% of local students were from a culturally and linguistically diverse (CALD) background, approximately 75% of all students were from relatively low socio-economic status (SES) and over 80% of the total student population were either engaged in or looking for part-time work (Baxter & Jayasuriya, 2008). Furthermore, many VU students are the first in their family to enter tertiary education (Keating & Gabb, 2005) and thus embark on their studies with a lack of fit between their entering habitus and that of their family and networks on the one hand and that required by the university on the other.

The Student Rover program was established as a potential means for fostering and facilitating social and educational engagement amongst this increasingly diverse student cohort by helping to make the new Learning Commons more student-friendly. It was also hoped that engaging high-achieving students in the 'public domain' of the commons would send a positive message concerning the strengths of VU students to the wider student cohort (Keating & Gabb, 2005). However, VU's Student

Rover program is paradoxical in the sense that unlike many other workplace learning programs it consists of students employed as students within the context of a tertiary education institution; and unlike many peer-mentoring programs operating within educational institutions VU's Student Rovers are paid as university employees whilst maintaining their identity as students. In this way the program seemingly disrupts the settled categories and dichotomies defining the respective roles of teacher/student, employee/customer, staff/client.

Theoretical Context

Education and the workplace are presently undergoing fundamental changes as a consequence of globalisation, technological advances and increasing organisational complexity; new forms of work are constantly emerging and it is our suggestion that the meaning of learning itself must consequently be reconsidered and reconfigured (Garrick & Usher, 2000; Engeström, 2004; Edwards & Usher, 2008). In 'liquid times' (Bauman, 2007), 'in which social forms ... can no longer (and are not expected) to keep their shape for long, because they decompose and melt faster than the time it takes to cast them' (p. 1), the 'swift and thorough *forgetting* of outdated information and fast ageing habits can be more important for the next success than the memorization of past moves and the building of strategies on a foundation laid by previous *learning*' (p. 3); learning itself must be liquefied (McCormack, Pancini, & Tout, 2010). Flexibility, adaptation and practical judgement thus become key capabilities of both the new learner and the new worker.

The emphasis and purpose of learning is no longer the acquisition and accumulation of abstract theoretical knowledge for subsequent universal application, but rather the development and deployment of contextual, situated and practical judgement in complex, competing and competitive circumstances. Theory is no longer able to govern practice; practice, while drawing on theory, now lights its own path based on precedent, analogy, experience, imagination and *in situ* practical judgement. Consequently, the formerly competing imperatives of learning to work and learning to learn are no longer necessarily or inherently at odds. As a result of the alterations in attributes demanded by the new workplace towards a more engaged, flexible and *learningful* worker, Student Rovers need to be framed as workers accountable to both 'the logic of productivity' and 'the logic of learning' (Engeström, 2004); that is, as students engaged in 'learningful work' (McCormack et al., 2010).

Framing the Learningful Work of Student Rovers

The formal role of Student Rovers is defined as: assisting students with basic enquiries relating to the use or location of university facilities and resources; modelling successful learning behaviours and strategies and assisting students in clarifying and articulating their own; and referring students to relevant IT, Library or Learning Support services within—as well as to other staff and services outside—the confines of the Learning Commons spaces. However, while these formal functions remain ostensibly transparent and coherent, framing the Student Rovers as students employed to remain students has generated significant underlying tensions and anxieties between those concerned primarily with the logic of productivity and those for whom the priority remains the logic of learning. As a result, there have arisen two alternative and competing conceptions of the role and function of Student Rovers.

Student Rovers as First-Tier Service Workers

Firstly, for those emphasising the logic of productivity, it has been tempting to impose a traditional, hierarchical service delivery model within which Student Rovers are conceived as fulfilling the primary function of first-tier service workers, handling routine technical enquiries and referring more

complex queries on to more experienced ‘experts’. This potential framing positions Student Rovers as the first point of contact for all services operating within the Learning Commons, thereby easing the workload of ‘professional’ staff. However, in this model Student Rovers are specifically forbidden from drawing on their own experiences or learning strategies and are held accountable for providing technically correct, institutionally approved information. While this framing arguably offers Student Rovers some degree of development in learning to work, there is little (if any) scope for the exercise of practical judgement; it may therefore be regarded as deficient in terms of affording opportunities for learning to learn and consequently ‘learningful work’ and thus offers inadequate exposure to the demands of the emerging workplace.

Student Rovers as Learningful Workers

Against this conception, those prioritising the logic of learning have required a less static and hierarchical structure that allows Student Rovers to use their personal experiences as students and their nuanced practical judgement to support other students in developing, clarifying and articulating their learning strategies and activities. Importantly, in this framing Student Rovers are conceived as both staff and student, with particular emphasis placed on the latter; they are students employed to be students, not students employed to be staff. Framed as both employees *and* students, Student Rovers are thereby rendered accountable to *both* the logic of productivity *and* the logic of learning. In this way it is hoped that Student Rovers are able to meaningfully engage in ‘learningful work’ and afforded the opportunity to develop the adaptability, lateral flexibility and nuanced practical judgement required for successful negotiation of the modern liquid terrain. However, such an emphasis on the logic of learning does not sit comfortably with normative Fordist conceptions of the workplace, in which learner workers are envisaged as possessing little knowledge, skill or contextual understanding and thus as requiring constant surveillance and strict subjection to transparent rules and procedures.

Student Rovers in the Third Space

These competing constructions of Student Rovers as either first-tier service workers accountable to the logic of productivity in the university as a workplace, or as students *employed* as *students* accountable to the logic of learning in an educational institution, produce an indeterminacy or liminality in the Student Rover role. However, rather than attempt to deny or eliminate this indeterminacy, it is hoped that it will prove to be productive insofar as it positions Student Rovers as ‘boundary objects’ (Tuomi-Grohn, Engeström, & Young, 2003) operating at the contested and contestable point of juncture between the university as a workplace and the university as an educational institution, as well as between the roles of university educator and student learner. This ‘third space’ within which Student Rovers function may thus constitute an opportunity for new forms of teaching and learning to emerge that are more aligned with the forms of flexible existence required by liquid modernity.

The potential framing of Student Rovers as boundary objects complicates the view of workplace learning developed by Billett. Billett has conceptualised a reciprocal and relational duality between the affordances for participation in workplace practices—and thereby learning—offered by a particular workplace and the agency, personal epistemologies and ontogenetically-derived subjectivities that influence how individuals conceive, construct and consequently engage with these affordances (2002; 2004; 2006; 2009). In this conception, workplace learning is understood as being co-constructed through the reciprocal participatory practices of individuals engaging in structured and sociogenetically-situated workplace practices in an agentic yet ontogenetically influenced manner. Importantly, both the individual and the workplace culture are conceived as simultaneously structuring and being structured through co-participatory workplace practices (Billett, 2002; Billett,

2004), an understanding reminiscent of that proposed by Bourdieu (1977) and Giddens (1984) regarding the mutuality of individual and society.

However if Student Rovers are employed *as workers* acting *as students* accountable both to the logic of productivity and the logic of learning, then Student Rovers are not simply being apprenticed into a workplace culture as workers in a one-dimensional sense. By framing the work of Student Rovers as students employed to be students within the overlapping and interrelated fields of the university as a workplace and the university as an educational institution, Student Rovers may be conceived as possessing institutionally disruptive and transformative potential through their liminality and indeterminacy; as ‘boundary objects’ operating within and negotiating the institutional ‘contact zone’ (Pratt, 1991; Pratt, 1992) between staff and students; as ‘misfits ... able to challenge the structure, sometimes to the point of remaking it’ (Bourdieu, 2002, p. 29). In doing so, we can potentially regard the Student Rovers as providing the possibility for the development of new learning practices and initiating the ‘expansive learning’ which can arise

when some individuals involved in a collective activity take the action of questioning the existing practice ... [leading] to an escalating process of debate and collaborative analysis of contradictions in the current state of affairs, which may lead to a projective modelling of a developmentally new form of activity, in which the contradictions are resolved (Tuomi-Grohn et al., 2003, pp. 30-31).

In this conception, Student Rovers may be posited as possessing transformative potential by virtue of their anomalous, indeterminate nature and their participation and operation within the negotiated ‘contact zone’ of interaction between the institution and its students. Reciprocally, we can consider the structuring impacts of the interrelated fields of the university as a workplace and as an educational institution on the habitus and social, cultural and symbolic capital of the Student Rovers as learningful student workers.

Student Rovers could perhaps also be conceived as fulfilling the function of ‘brokers’ in the Wengerian sense; ‘brokers are able to make new connections ... facilitate coordination and open new possibilities for new meanings’ (Tuomi-Grohn et al., 2003, p. 4). Here, in place of a duality of structure and agency between the university as a workplace and Rovers as workers, Student Rovers are positioned as students employed *to be students* operating as mediators or negotiators within the relational ‘contact zone’ between the university as an educational institution and its students, increasing student perception of and engagement with existing institutional affordances for learning whilst simultaneously increasing the reciprocal agency or effectivities of the students.

Methodology

The evaluative research project we are currently engaged in—entitled *Student Rovers in the Learning Commons*—is intended to further our understanding of the perceived and actual effectiveness of the Student Rover program in supporting students’ learning within VU’s Learning Commons as learner- and learning-oriented spaces. The project entails the investigation of the impact of Student Rovers across three interrelated and overlapping areas of concern:

1. The success of Student Rovers as an approach to supporting students’ learning within VU’s current and future Learning Commons spaces,
2. The effect employment as a Student Rover has on the development of VU students’ key graduate capabilities and workplace, study and learning skills more broadly,
3. The effect of the Student Rover program on the operation of VU’s Learning Commons as learning spaces; that is, the effectiveness of the program as both a ‘first-tier’ of student support as well as a means of encouraging and facilitating the use of these spaces and the development of student ‘communities of learning’.

The difficulties involved in determining the extent to which learning spaces impact upon the learning that occurs within them has already been well documented (Keating & Gabb, 2005; Hunley & Schaller, 2006; Lippincott, 2006; Fisher, 2007). Most evaluations of the operation and effectiveness of academic libraries and learning commons have utilised varying combinations of quantitative measures of student usage as well as mixed- or single-method measures of user satisfaction (Keating & Gabb, 2005, p. 4). However, as Bennett points out, “the success of the academic library is best measured not by the frequency and ease of library use but by the learning that results from that use (2006, p. 7).

Similarly, in focusing upon the impact and effectiveness of the Student Rover program as both an original learning support strategy and a potentially important learning experience for the Student Rovers themselves, we are concerned not simply with the quantity and frequency of contact between students and staff and the Student Rovers, but with the quality and impact of this contact for all parties. In developing this study, then, we have chosen to deploy what Kalikoff has termed a ‘mosaic’ approach (2001). In an investigation of appropriate methodologies for use in evaluating the impact of learning support strategies, Kalikoff advocates a ‘mosaic’ approach involving the implementation of a ‘series of evaluations that are textured, various, and complementary’ and which provide ‘reliable and detailed information’ on what has been accomplished (p. 5). We conceive of a ‘mosaic’ approach as offering a potentially useful strategy for the successful evaluation of the impact of the Student Rover program across our multiple, complex and abstract areas of investigation.

Consequently, in attempting to evaluate the Student Rover program as an original and important learning support strategy, as an essential affordance of VU’s various learning spaces and as a potentially transformative learning experience for the Student Rovers themselves, we are deploying various research methods targeted at numerous participant groups with the aim of collecting ‘reliable and detailed information’ across our interrelated and overlapping areas of concern. As a result of the complex nature of our multiple research questions, this study is being conducted using a pragmatic parallel mixed-methods design arising from within a pragmatic evaluative research framework. The pragmatic research paradigm is defined by its emphasis on practicality and effectiveness over theory or philosophical assumptions: ‘pragmatists consider the research question to be more important than either the method they use or the worldview that is supposed to underlie the method’ (Mertens, 2005, p. 294). In this respect, and with regard to our multi-faceted research questions, this paradigm supports the ‘mosaic’ approach advocated by Kalikoff as outlined above.

Furthermore, Mertens suggests that mixed methods ‘have particular value when a researcher is trying to solve a problem that is present in a complex educational or social context’ (2005, p. 293), while Tashakkore and Teddlie identify the pragmatic research paradigm as that which provides the underlying philosophical framework for mixed-methods research (2003). More specifically, the pragmatic parallel mixed-methods design adopted for the purposes of this study is defined by Mertens as ‘one in which qualitative and quantitative data are collected and analysed to answer a single study’s research questions’ (2005, p. 296). Consequently, such an approach seems most suited to this evaluative study given the complex nature of the research questions being explored.

The parallel mixed-methods design adopted for this study allows for the simultaneous collection and analysis of both qualitative and quantitative data in attempting to answer the study’s quadripartite research question (Mertens, 2005, p. 296). Focusing primarily on qualitative methods, elements of phenomenological, ethnographic and participatory action research methodologies have been drawn upon, with data collection and analysis methods including participatory reflection, document analysis, online surveys, paper questionnaires, focus group sessions, mapping diaries and exit interviews. In addition to these methodologies, quantitative statistics are collected by Student Rovers regarding the number and nature of enquiries received throughout each shift worked. Rovers are required to collect data on the type of student enquiries received during each shift, whether or not they were able to help the student and whether they referred the student on to a second-tier staff member. This data is sent wirelessly to a database located on Central Desktop and will be collected and analysed as part of this

study to determine what proportion of the questions relate to information technology, library use or learning support more generally, which types of queries are referred on to second-tier staff, as well as whether the pattern of enquiries changes during the course of the year.

Discussion

Ethics clearance has only recently been received for this evaluative study and consequently data collection has only commenced recently. While the intention is to have completed the majority of data collection by the end of 2010 and the analysis by mid-2011, due to the fact that the project is looking for signs of learning development there is an inescapable longitudinal dimension to our data collection. At this point in time, eleven Student Rovers and twelve staff members have been interviewed and a small number of Student Rover End of Shift (EoS) Reports analysed. EoS Reports are written by Student Rovers at the end of each shift worked and are posted to a shared workspace using social networking software Central Desktop, asking them to reflect on their activities and interactions throughout their shift. The primary function of these initial analyses has been to create and moderate inter-rater reliability in tagging the EoS Reports against a rubric of themes, however a few extracts from these data will be cited and discussed to offer an indication of the kinds and content of texts being gathered and analysed.

Excerpts from a Staff Interview

The first text derives from an interview with Academic A, an academic staff member who played an important role in the original conception of VU's Learning Commons model and the inclusion of the Student Rover program within these spaces. Academic A begins by situating his own interest in the idea of the Learning Commons and Student Rovers in relation to his concern for the issue of transition:

I guess its set within the sort of work which we were doing then and which I'm still involved in which is a fairly strong focus on the management of transition into higher education particularly

He then proceeds to outline the perceived differences in experience between contemporary VU students and those university students who attended traditional universities in the past, when going away to university and participating in campus life constituted an essential rite of passage for the intellectual elite:

and so we're very well aware of the fact that the management of transition in a traditional university is very different to the management of transition in a place such as this, not just because of the social capital that the students arrive with, in that they're very often the first in their family to go to university, but also the fact that they are commuters to university in the North American sense

Academic A subsequently comments on the different relationship contemporary VU students have with the university, compared with traditional students, in terms of the time they spend on campus:

so they basically are only on campus when they have to be - most of them, not all but many of them, are only on campus when they have to be - and that's for classes.

The rationale for the development of Learning Commons as a transition strategy is raised by Academic A, however he notes this was not intended to replicate the on-campus life of traditional

students; it was always accepted that in reality most VU students will not spend much of their week on campus:

Yes, I think it's pretty much a lost cause that we should say we should encourage students to have the old-time university experience, they should be here all day seven days a week, etc, etc, I think that's pretty much a lost cause

However, according to Academic A the intention behind the original development of VU's Learning Commons was that even if students could not be attracted back on campus in the 'traditional' manner or to the same extent as previous generations of students, they might at least be attracted by a friendly, helpful learning space during the 'dead times' before, between and after lectures:

... and so if we're to provide an effective transition process then there's not much point us spending lots of time on extra-curricular things, we need to focus on the curricula. And so we need to focus on what goes on in the classroom and in any other learning space around the university. So the notion was that students should be encouraged to use learning spaces within the university and that those learning spaces should be helpful, friendly, supportive, all of those things, yes. There is a nostalgic view that says that's the way it should go, but what we should be doing is saying yeah, come here for classes and before, after, in-between classes there ought to be a space where you can go and you can be, you can study, and it will be part of both social and academic transition management.

These extracts from a staff member involved in the original concept and development of VU's Learning Commons model and its incorporation of the Student Rover program provide a coherent account of the founding aims and intentions behind the Learning Commons together with its resident Student Rovers.

Extracts from Student Rovers' End of Shift Reports

The following passages are extracted from End of Shift Reports written by Student Rovers during first semester 2010. EoS Reports can be considered from two perspectives: on the one hand they are hand-over reports for the next shift; on the other, they are online documents potentially read by the entire rover team. EoS Reports loosely follow a generic template suggesting that they record critical incidents, any special events and at least one eventful interchange. As data contributing to this study, EoSs can be analysed for two significant elements: firstly, signs of learning development in Student Rovers themselves; and secondly, signs of learning development or articulation in other students as a consequence of the presence or assistance of Student Rovers. The former is abundant; the latter elusive and rare. However, insofar as the EoS provides a Student Rover perspective on the activities and interactions taking place within the Learning Commons, it would be unreasonable to expect that they should provide much detail on the impact or otherwise of Student Rovers on the learning of other students in the Learning Commons. Focus groups and surveys to be conducted throughout second semester this year should capture more data of relevance towards the issue of the impact of Student Rovers on other students' learning.

EoS Report Excerpt #1

The first EoS extract offers an excellent example of a Student Rover's active approach to learning based on the exercise of problem solving skills and practical judgement. Having 'absolutely no idea what a Gantt chart is', nor finding anyone who could be of immediate assistance, a Student Rover proceeds to problem solve collaboratively with the student asking for help by studying the Excel Help files:

How can you present your data in a Gantt chart in Microsoft Excel? I had absolutely no idea what a Gantt chart is and went straight to the staff to ask. As nobody knew, the enquirer and myself simply dedicated a good 10 minutes following the Excel Help instructions. After going through the steps we realised it was another chart that could be created under Chart section of the Insert tab. How easy was that? Just needed to take away the fancy names.

The final reflective comments in this extract—‘How easy was that? Just needed to take away the fancy names’—is also indicative of a reflective, meta-cognitive stance in which the Student Rover reflects on why the learning task was not as difficult as they initially imagined; simply take away the fancy names and locate the chart in the Chart section of the Insert tab. It is the sharing of this sort of agentive learning in collaboration with a student seeking help that we are hoping will impact the ontogenetic learning development of that very student, so that next time they are prepared to study the Help files themselves, problem solve and look around and behind often opaque ‘fancy names’.

EoS Report Excerpt #2

The second extract records the simpler situation of a Student Rover learning how to complete a technical procedure: how to split an Adobe Reader file into two files. Although this is relatively esoteric knowledge, it is both technical and specific to PDF files within a particular software program. The learning strategy employed by the Rover is also appropriately straightforward and effective, involving the opportunistic enlistment of the assistance of a knower and then learning from them how to perform the procedure:

I managed to broaden my knowledge by learning something new with adobe reader today. A student wanted to split the files that he scanned from the library printer into two files and Bill helped solved the problem. Apparently you just have to extract the files from the no of pages you want and delete the previous ones. Easy peasy.

There is nothing special about this act of learning, except that the Student Rover has been pro-active in taking advantage of the situations affordances for learning. They do not simply report helping someone to do it, they report getting someone else to help them with the query and consequently learning themselves as a result of being present and participating in that act of helping. We could say that this Student Rover is actively looking for situations to learn – even though the focus of content may be just software procedures. We might also suggest that in the contemporary organisational context, knowing how and where to find the solution to a given problem is perhaps more useful and appropriate than knowing the solution oneself. The willingness and ability to seek and evaluate available information constitutes precisely the type of flexible, adaptable and practical skills required by the liquid modern workplace.

EoS Report Excerpt #3

The third example is a longer extract in which a Student Rover details the various ways they were able to assist a transitioning student locate resources for an assignment, yet upon reflection they realise and admit they could have given even better advice:

That enquiry was related to the PD1 assignment (research a company’s environmental impact from 4 perspectives: corporate governance, financials, social & environment). The student was responsible for researching the environmental impact (particularly climate change) of Woodside’s business. I assisted him in navigating the company’s website to find the annual report as well as logging into Mint Global database from VU’s Library homepage. The student also asked if there were textbooks & journals about the company. I told that company information could be found in journals but not textbooks. However, now thinking back, I should have emphasised that textbooks can be used to find general information on climate change or business environmental impact

whilst journals are specific up-to-date information. That way his research would not be narrowed down to the company's website

One of the important learning tasks for students transitioning into higher education is to come to understand the different epistemic status and rhetorical purposes of the range of resources around them—general websites, Government websites, company websites, textbooks and academic journals—and the quality and reliability of information they provide. Many VU students have no idea of the differences in focus, value and authority assigned to these different sources of information due to their educational ontogeny or habitus, yet it is absolutely critical (and expected) for the successful negotiation of tertiary education. This Student Rover is reflexively rehearsing these differences, reflections that will benefit their own studies as well as those of other Student Rovers and any future students asking them similar questions.

EoS Report Excerpt #4

This fourth quote is a longish excerpt revealing how a Student Rover sensitively scaffolds the handing over of IT skills to a student with very little IT experience ('yes she is a mature aged student') as he walks the student carefully through the entire process of formatting and printing her assignment:

Today a student approached me requiring assistance with logging into the pc. She was not able to do so as she had to change her password. I suggested that an easy way to make a new password is by adding a number to her current password, instead of making a completely new password. She took my advice onboard and her password was reset within seconds. I sat with her as she seemed a bit unfamiliar with how to use a computer (I assumed this from the small conversation we had, the student spoke about not liking to type her assignments up and finding it difficult to do everything online nowadays, yes she is a mature aged student). She wanted to print her assignment out. I had a look at it; it was fine however I suggested that she justify the text. She did not know what that is, so I showed her. Her work was very much cluttered and not easy on the eye. She did not have clear headings. So I showed her the styles of heading she can use to make her work easy to read. I also suggest she break the page and put the bibliography on a separate page. By the end her assignment looked professionally layed out. She was very happy with the outcome and said that she'll definitely start using these options in the future. I went over with her to the printer and printed her work with her.

EoS Report Excerpt #5

The fifth and final excerpt contains another IT-focused reflection, which again demonstrates the agentive 'have a go' approach to problem-solving and learning development followed by reflection on the similarities between different computer operating systems:

Although I did have two people needing help connecting to the wifi network right after each other. One student had a mac, and the other windows vista. Not being familiar with macs, it was a bit of a learning experience recognising the names of the different programs involved. however as i have had some personal experience with wireless connections as well as helping many students with this previously, i was able to get the student connected. As i have noticed that although it may be a little different, the terminology and they way it connects is very similar across the operating systems. Also with the experience i have had i was able to modify the way we did things instead of using the instructions word for word, as they computers had connected before.

Again, while the content of this EoS remains relatively trivial and un-academic, the experimental approach to problem solving followed by reflection exhibits a valuable learning habitus, a habitus well attuned to both the contemporary university context as well as to the liquid modern workplace.

In one way or another, each of these excerpts from Student Rovers' EoS Reports may be conceived as demonstrating a willingness and ability on the part of Student Rovers to exercise their nuanced practical judgement in assisting other students to solve their immediate problems, none of which the Student Rovers necessarily *know* the technical solution for. Instead of offering a 'quick fix' or referring the students on to a professional staff member for a context-free solution, in each instance the Student Rover is able to assist the student in finding a contextual and immediately applicable solution. In adopting this approach to learning support, it is hoped that the Student Rovers are able to affect other students' learning ontogenies by providing the means and capability of finding appropriate and practical solutions when they are required. In this sense, the Student Rovers may be conceived not only as engaging in learningful work themselves but, furthermore, as potentially influencing the learning habitus of other students in developing the ability to 'go on' when finding themselves in the increasingly common situation of confronting the undefined, the indefinite, the emergent.

Conclusion

This paper has offered an initial description and discussion of the preliminary stages and findings of a research project designed to evaluate VU's Student Rover program, an on-campus, work-based learning program started in 2006, in which students are employed to provide 'just-in-time' and 'just-in-place' learning support to students in the university's Learning Commons. Commencing with an initial sketch of the theoretical background, the paper has focused on the potential conceptualisation of Student Rovers functioning as 'boundary objects' situated anomalously between staff and student, employee and customer, a role that may offer a potentially privileged position for enacting change in the teaching and learning practices of staff and students in line with the requirements of liquid modernity. After describing the research methodology that has been and is currently being employed, some indicative preliminary data has been presented to provide a taste of the kind and content of texts being analysed and as a basis of an initial discussion around the implications of the Student Rover program.

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The role of universities in preparing work ready information technology graduates

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The role of universities in preparing graduates for the workforce is a longstanding and controversial issue. In the business world, employers are increasingly interested in what their employees can do and less interested in what they know. There is an uneasy relationship between universities and their curricula and employer expectations of graduates. In the field of IT (Information Technology), minimal research literature exists on understanding graduate perspectives of their work experiences or how to relate their formal study to their work experiences, especially during the early employment years. When we studied the work experiences of recent IT graduates we found that certain professional skills can be developed only during employment. However, universities could be responsible for preparing IT graduates to face unknown, unknowable supercomplex situations, ensuring IT graduates learn how to learn, increasing knowledge and awareness of workplace environments and setting initial job expectations of, and for, IT graduates. We also found that in their degrees, IT faculties need frameworks beyond graduate attributes for the development and inclusion of IT specific professional skills.

Keywords: work ready graduates, IT professional education, IT workplace experience

Introduction

There is an increasing expectation amongst students and employers in professional fields such as information technology (IT) that university studies will provide sufficient skills to enable graduates to find employment in the industry. However, minimal research, particularly in the IT field, has been carried out in following graduates into their professional practice. Understanding IT graduates' perceptions of the practical relevance of their courses to the skills required in workplaces is important information for both higher education and the information technology community. Hence, our research studied the professional work experiences of recent Australian IT graduates. By professional work skills, we refer to skills such as communication, teamwork, etc, i.e., non-technical skills. In comparison, previous research showed few concerns about technical skills, which were assumed to have been acquired through the graduates' IT studies. Our study was motivated by:

1. many IT graduates with good technical skills do not get jobs, mainly because of their poor professional skills and
2. in the IT education literature there are studies on technical skills that focus on the employers' viewpoint but few on professional skills and none from the graduates' viewpoint.

Our main research question is: What do the professional work experiences of recent Information Technology graduates in professional practice tell us about their preparation for the profession?

An exploratory, qualitative methodology that used a grounded theory approach was employed. The goal was not to make sweeping generalisations but to present contextual findings grounded in data, staying as close as possible to the construction of the world as participants originally experienced it. Hence, a grounded theory approach became a natural choice over other qualitative research methods. Interviews and qualitative online surveys were the research methods chosen. Twenty four graduates, mostly from NSW participated. All had an Australian bachelor's degree in IT, had graduated within the last three years and studied as a full-time local or international student. They were employed in a paid IT professional position from 0.5 - 3 years. Some had completed work experience as a part of their degree but had not had any other previous paid IT work experience. Eleven were interviewed (six males and five females) and the other thirteen responded to the in-depth online survey. Participants came from a broad spectrum of cultural and ethnic background, worked for small,

medium and large sized companies that were either multinational or local and were employed across a variety of IT roles (consulting, software development, network management, business analysis, project management etc..).

The research findings provided a rich description of:

1. the challenges faced by IT graduates at workplaces;
2. the professional skills IT graduates believe they need at their workplaces;
3. the sources of these professional skills; and
4. the most useful aspects of their university studies that contributed towards professional skills development.

Many of the challenges in early graduate employment revolved around working with people. Other major categories of professional skills that IT graduates believe are required for their work are communication, time management, teamwork, working across cultures, project management, business skills and personal attributes. These professional skills are developed by multiple sources including academic, social, personal, professional and other work experiences or a combination of these. IT graduates believed the most useful components of their university studies for developing the necessary professional skills were work placements and “real life like” projects. The findings from this study raise many questions for IT educators and employer groups. More detailed discussion and analysis of the findings are available in (Nagarajan and Edwards, 2008; Nagarajan and Edwards, 2009).

The Australian Technology Network defines graduate attributes as:

the qualities, skills and understandings a university community agrees its students would desirably develop during their time at the institution and consequently shape the contribution they are able to make to their profession and as a citizen.

The employability skills framework (DEST, 2002) developed by the Australian Chamber of Commerce and Industry and Business Council of Australia named eight employability skills and broad personal attributes across all industry sectors. They are communication, teamwork, problem solving, self-management, planning and organizing, technology, lifelong learning and initiative and enterprise. However, the higher education sector has no systematic framework to embed these employability skills. It relies on the view that employability skills are a subset of graduate attributes (Oliver et al., 2007a). Different IT departments adopt different approaches to embedding graduate attributes in their subjects and courses and adopt different strategies to teach these attributes. For example, many IT undergraduate degrees have a capstone course. The aim of most capstone projects is to integrate students into the IT profession so they often include real workplace assessors and sometimes real or simulated interviews with clients and supervisors. The assessment of these projects should take into consideration not just the technical content based on the project deliverables but also the development and use of professional skills. Ideally the problems are open, ambiguous and designed so that students from different cultures and languages can interact with workplace supervisors and university supervisors.

Our argument is that the development of professional skills is a distributed responsibility and different players (such as professional faculties at universities, employers and graduates) have different contributions to make. Table 1 provides some details of these roles. In this paper, we focus on the role of universities and the areas where they can assume some responsibility for professional skills development.

We discuss the underlying theory of supercomplexity that is relevant to the issue of preparing graduates to face the complex world of work. Next, we examine the specific role of universities in the development of professional skills of IT graduates. Using an example, we indicate that the graduate attributes approach currently used by Australian universities is inadequate for the development of

some professional skills in IT graduates. Our study findings show that work placement and work experience opportunities are believed to present the maximum opportunities for the development of professional skills of IT graduates. Thus, we discuss how certain IT professional skills appear to be acquirable only in the real world.

Table 1: The role of different players in the development of professional skills of IT graduates

What could universities be responsible for?	What could employers be responsible for?
Preparing IT graduates to face new, unfamiliar, unknown and unknowable situations Preparing graduates to cope with complex and dynamic work requirements Preparing graduates to learn how to learn Increasing students' knowledge and awareness of workplace environments Assisting IT graduates with initial job expectations Developing well-rounded global graduates Maximising and using diversity in university environments to assist IT graduates develop social and cultural skills	Training IT graduates when they commence work Facilitating workplace learning and organisational learning Increasing work socialisation
IT graduates' responsibilities	Shared responsibilities: Certain professional skills can be developed only in practice sites
Developing professional skills both within and outside university studies Managing their career Managing themselves Self assessing in the workforce	Linking theory and practice and learning on the job Developing employability and work ready skill sets Facilitating work placement experiences Encouraging part time employment (in IT or otherwise) in parallel to university studies Providing work based learning

Preparation of IT graduates for a supercomplex world

Our study findings uncovered complex relationships amongst the categories of professional skills and the possibility that they could be developed from a variety of learning, social and work environments. This complex nature leads to a shared responsibility between universities, employers and graduates. Barnett (1998) states that we live in a supercomplex world not just a complex world, and defines a supercomplex world as *one in which we have the very frameworks by which we orient ourselves to the world are themselves contested* (Barnett, 2000). He believes that university curricula will be unlikely to yield the human qualities that the current age of 'supercomplexity' requires. Hence, he thinks the challenge is not to prepare students for a complex world but to prepare them for a supercomplex world. Some of the ways in which universities could prepare students for supercomplexity are to

equip them with the power of reflection, the capacity to act in the world, a greater awareness of self and metacapacities that generate personal and interpersonal resources not just for coping with supercomplexity but also a mode of effective being within it (Barnett, 2000). Preparing graduates to face a supercomplex world is not an easy task for universities and the difficulty is compounded by the ever-changing needs and expectations of employers.

Universities are not solely responsible for developing work ready IT graduates

The results from our study indicate that IT graduates acquired the necessary professional skills from a variety of sources in and outside the university including on-the-job and personal life experiences. Some professional skills were developed their IT studies but became more meaningful when graduates practised then in their workplaces. Those work skills were acquired from university studies, general university experiences, internships and work placements. A significant proportion of skill development also occurred after formal studies during graduate employment. Thus, in addition to universities' responsibilities, there is also some responsibility on employers and graduates themselves. Many professional skills take a longer time to develop than the length of a university course and a lack of time as well as a lack of certain opportunities in universities suggests challenges for the development of many professional skills. Further, IT graduates have a responsibility for their personal and social development both within and outside their university studies. Similarly, employers have a responsibility to assist graduates with adequate customised training, mentoring and peer support during the initial years of employment.

What could universities be responsible for?

Preparation of IT graduates to face new, unfamiliar, unknown and unknowable situations

One of the major issues highlighted by our research is the lack of preparation of IT graduates to face new, unfamiliar, unexpected, unknown and unknowable situations. Professional faculties in universities have some responsibility to prepare graduates to learn how to learn in such situations. Crebert et al. (2004) describe some major challenges faced by graduates concerning how to learn and function in unfamiliar unpredictable situations and how to cope with multifaceted, multi-skilled, multinational work that requires collaboration, cooperation, flexibility and inter-cultural awareness.

Universities could use workplace socialization theories as a means to understand the behavioural patterns of new or recent graduates and how they respond to uncertain situations. Feldman and Brett (1983) believe there are two such behavioural perspectives namely: stress and career perspectives. The stress perspective helps graduates to perceive and evaluate if unfamiliar situations are a threat to old valued outcomes or an opportunity to achieve new valued outcomes. Many people are able to develop new behavioural patterns to deal with stress. The career perspective helps graduates face uncertainty in new job situations and focuses on expectations they might have about their new job. They are able to respond based on the information they have about their new job and this enables or inhibits their ability to socialize with others at work. Although the IT graduates in the study found it difficult to cope with uncertain and unfamiliar situations they responded to such situations reasonably well and developed their own strategies to deal with the stress and the unfamiliar tasks on hand. Graduates' survival depends on self-confidence, learning on the job, extent of support, learning opportunities, supervision and mentoring or collegial induction and enculturation (Crebert et al., 2004).

Bennett et al. (2000) believe that for new graduates, adjusting and adapting to the workplace environment results in the form of a "culture shock". This is where universities could assume some responsibility and better prepare graduates to face new, unfamiliar situations when they first enter the workforce. However, there is a limitation in that the educational experiences of graduates can provide

them only with propositional knowledge (that is knowledge derived from discipline-based theories and concepts) (Eraut, 1994). But there are also other experiences from which people learn from unexpected situations where there is no direct educational purpose. As a result, graduates are expected to develop their own personal cognitive frameworks and their propositional knowledge becomes personalized through the process of being used in different work situations.

Preparation of graduates to learn how to learn

IT workplaces are diverse and this suggests that requirements for work performance are not uniform across workplaces. Brown and Hesketh (2004) argue that professional skills developed during a degree will be of little value if not needed by an employer for a particular job. However it is important to be conscious that the skills needed for a small company are different from those needed by larger ones. Universities cannot design to such a broad spectrum of requirements. Hence employers' expectation that universities should better prepare graduates to fit immediately into IT workplaces are unrealistic. However, universities have the capacity and the potential to educate graduates about diversity, and unfamiliar and uncertain and unknowable situations and prepare them to live in such a world.

Rather than struggling to develop professional skills in IT graduates to suit all IT workplaces, universities could use an alternative approach which fosters flexible attitudes, self-autonomy, learning capacity and personal entrepreneurship in graduates (Meager, 2001). For example, simulated projects, internships, work placement experiences, role plays, team work and problem-solving tasks during project work or assignments could be strategies used to develop 'self-learning' skills. Many Australian IT degrees contain some or all of these approaches but many do not.

In the IT workplace, the graduates in our study sometimes learned to deal with workplace issues through support from peer groups and supervisors. But on most occasions they found themselves in situations they had to resolve themselves. While most of them coped with it well, they believed that it would have been beneficial if they had had exposure to such real work experiences during their university studies. This observation from the findings suggests that students needed more preparation on how to learn while at work. Work placements provide opportunities to develop situational knowledge.

According to Eraut (1994), situational knowledge is knowledge about how people 'read' the situations in which they find themselves. People learn about situations by being in them rather than studying them. For example, it might be difficult to achieve cultural diversity within assignment or project groups within a university project subject. This diversity in (age, gender, culture, hierarchy) is naturally present in many workplaces. Hence work placements have the ability to enhance the quality of the studying experiences for graduates and assist them to gain first hand experience with working in diverse groups of people from IT and other sectors.

IT graduates understood they have to learn many things at work to carry out their daily tasks. However they found that the concept of 'learning' at work was different from the 'learning' they did at university. Eraut (1994) says one has to be a professional learner to become an effective learning professional. He states that how people use the knowledge they have already acquired depends on learning knowledge and using knowledge and that these two are not separate processes but a single process. Therefore, universities have a responsibility to assist graduates to become professional learners so they can learn effectively while at work, acquire knowledge and use this knowledge.

Increase students' knowledge and awareness of workplace environments

IT graduates in the study liked to work with groups or friends of the same age. They did not like open problems. Graduates need to realise that the real world is not often like this. A university approach is to put IT project students groups that mix diverse personalities and skills to resemble project teams at

workplaces. Project work and assignment problems could be open and intentionally ambiguous. Problems that have multiple solutions force graduates to think hard, justify how they make their choices, require them to consult and cooperate with their team members in decision-making and, more importantly, to learn that real world problems do not always have a single simple solution. Students should realise that the choice of solutions depends on the context, resources and individuals involved. Sometimes, even when small changes to a problem occur, large changes are required to the solution. In such situations, it is important for graduates to rely on known strategies and not engage in speculative problem-solving strategies (Eraut, 1994). In IT courses, academics or the project supervisor can revise the scope, time and budget of IT projects for student teams. Such situations can help students develop skills to deal with project changes and enhance their problem solving abilities. Eraut (1994) believes students must be able to develop broader vision, view or analyse different perspectives, see many courses of action and be in a position to handle multiple interpretations. He says that courses should avoid being too narrow or prescriptive. Crebert et al. (2004) state that problem solving skills can be enhanced in graduates if universities take input from employers as to their needs and in setting open problems for university projects where several solutions may exist (as in the real world).

Assist IT graduates with initial job expectations

Several studies into graduates' initial job expectations show there is a mismatch between their expectations and reality. Losyk (1997) and Montana and Lenaghan (1999) asked generation Xers about expectations of employers. The graduates in their studies wanted the freedom to work with minimal supervision, wanted guidelines and access to management if they had questions or needed direction. They also preferred a highly unstructured, flexible work environment but wanted basic guidelines such as month by month learning and outcomes to the year. They prefer their fellow workers to be like them. Crebert et al. (2004) believe that graduates' expectations have increased rapidly because recruitment agencies often exaggerate some of the extra benefits and offers (world travel, club memberships, etc.) attached to job opportunities. However, graduates often have routine poorly paid less interesting jobs and, as a result, the graduates feel frustrated. Universities should use internships, practical work examples, simulated project work, business speakers, and career services to provide graduates with knowledge about the nature of the IT workplaces and what to expect during their first few years of employment. Many IT faculties at Australian universities have been using all or some of these approaches successfully.

Development of well-rounded global graduates

Universities could also be responsible for developing graduates who can fit into global workplaces. Fuller and Scott (2009) discuss the need for global graduates and the development of job-readiness and employability skills in a global context and not just the local context. They claim job-ready and employable graduates are those who possess strong generic skills as well as strong professional qualifications through completion of a university degree. This is very relevant for the IT industry. IT graduates need the ability to work across different cultures and understand the global nature of business. Furthermore, information technology has now permeated all other industry sectors and the professional skills required for IT graduates are not just restricted to the IT sector but must be transferred across many different industries and sectors. Universities can encourage students to cross their discipline boundaries and learn to embrace other disciplines and then to explore the relevance of their own course learning outcomes beyond university because this is the attitude employers are increasingly seeking.

Maximise and utilise diversity in the university environment to assist IT graduates develop cultural awareness and social and cultural skills

Graduates need skills to work with people from different industry sectors, people from different age groups and with different experience levels in the workplace hierarchy. Universities should encourage

collaboration between students in different disciplines and promote and facilitate socialization between students from different courses both on academic as well as cultural and social issues. While forming IT project groups it is ideal to have a good mix of students from different age groups, with or without previous work experience either related or unrelated to IT. Diversity teaches students that other students arrive at university with different stages of maturity and that they react differently to different experiences and that there might be similar encounters in real work situations.

Within Australian universities, particularly in IT departments, both staff and students come from a diverse range of ethnic and cultural backgrounds. It is important to utilize this diversity to help develop the social and cultural skills of IT students during their university studies. Cultural awareness and being able to work with cultures is a professional skill that many IT graduates believe that they need at their work. This is because the IT industry is global, multi-national and involves clients and peers from around the globe from different cultures. Universities should do more to develop cultural awareness and the ability of graduates to work in a global environment. Oliver et al. (2007b) found that employers surveyed in their study highlighted that their graduates lacked an international perspective and intercultural understanding. They state that graduates with international perspectives are able to consider how issues might impact on people in other parts of the world and graduates with intercultural perspectives are able to consider how issues might impact on people from other cultures. Encouraging participation of students in planning and conducting major events on campus, inter cultural events or cross cultural groups in sports, social events, debates, etc. while at university will provide graduates with some opportunities to increase their cultural understanding and development of socio-cultural and professional skills.

Overcoming language barriers and using appropriate communication styles are also essential skills required when working with people from different cultures. In addition, IT graduates need to be aware of local customs and practices when they go on overseas business trips. The majority of IT graduates who participated in the study highlighted the significance of these cultural skills. However it is surprising to notice that there is no direct reference to the development of skills required to work across different cultures in the graduate attributes used in many universities. Even in the case where there is an indirect mention, there is no assurance that such skills are translated into learning and assessment resources. IT faculties need to ensure that the IT curriculum prepares graduates to work with people from different cultures and beliefs. As outlined above, IT departments need frameworks beyond the current common graduate attributes to assist the development of well-rounded global graduates.

Certain IT work skills can be developed only in practice sites

IT graduates in our study indicated that they need many business skills at work and that those skills were not developed sufficiently at university. Some business skills such as understanding business needs and knowledge of organization procedures can be developed only when at the graduates are in the workforce. It is hard for such skills to be developed at university. Work placement experiences might assist in the development of these skills to some extent. While many employers see such placements as a potential source of staff, others may need incentives perhaps for their development of senior supervising staff to take on such placements. However, Business skills are still more likely to be developed when IT graduates are in employment following graduation.

Most employers value teamwork, interpersonal, spoken communication, ability to prioritise tasks and problem solving skills in graduates. Many of these skills can be developed at university through individual subjects, project work and work placement. However, contextualising those tasks that involve generic skills to a profession is important so a student sees the relevance of those tasks to their future employment. Also many employers assume these skills are sufficiently developed at university. However, many of these skills such as critical thinking and conflict resolution take a long time to develop and need some years of job experience.

IT graduates believe that more exposure to the industry through multiple work placements is vital to pick up many work ready skills. Opportunities could be provided within work placements while at university to develop teamwork skills through project work, group work, presentations and debates. Other strategies such as the use of case study exercises and problem-based learning provide problem solving skills (Fallows and Steven, 2000). Some universities need to increase their industry connections and expose students to the business world throughout their university studies so students do not experience 'culture shock' when they commence work. Rather than expecting that IT graduates must have work ready skills, employers have a responsibility to assist in the development of these skills when graduates first commence work. It is not sufficient to assess such skills in a subject at university and decide that the students have acquired those skills (Yorke and Knight, 2006).

Conclusion

University IT faculties, employers and graduates have different contributions to make to the development of professional skills of IT graduates. IT education needs each of the players to accept its responsibility and cooperate with the others. This paper discussed the role of universities and how they can contribute to the development of professional skills of IT graduates. However, employers as well as graduates also have a major role as some professional skills can be acquired only from practice sites over time. An issue highlighted by our research is the lack of preparation of IT graduates to face new, unfamiliar or unknown situations. Professional faculties in universities have a responsibility to prepare graduates to learn how to learn in such uncertain situations, to assist with the development of a knowledge of work environments and initial job expectations, and the skills for self-directed learning beyond graduation. A discussion on the inadequate coverage of some skills such as cultural awareness illustrated that IT faculties need frameworks beyond existing graduate attributes in their IT degrees for the development and inclusion of specific professional skills for the IT workplace.

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Evaluation methodology for Work Integrated Learning - placements: A Discussion Paper

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Background: This paper will address the evaluation of WIL (placements) in order to provide a strategy to improve performance in universities' WIL as benchmarked in the AUSSE, GDS and placement unit feedback.

Overview of issue: Although WIL placements are important and valuable for student engagement, learning, graduate employability and industry partnerships, there are few empirical studies or reviews that inform evaluation methodology for them. The assessment of placement outcomes and the student experience is typically more complex than evaluation of a standard university unit because of the wide variation that occurs with placements. Students are likely to be working in different organisations, and working on different projects within their various disciplines. Adding to this complexity, the organisation supervisor is an additional stakeholder critical to the placement experience, and who ultimately makes the judgment of student performance. Although an organisation supervisor may complete an individual feedback form for their students, generally this information is not strategically aligned within a broader university evaluation process. Initial examination of available literature revealed that the multi-dimensional perspective (organisational supervisor, placement co-ordinator and student) is not usually incorporated into evaluation of placements to inform continuous improvement for example. There are gaps in the evaluation process which could be addressed through more comprehensive evaluation that could be utilised across Faculties and Institutions. In 2010, we will conduct an inter-faculty project to develop and trial an evaluation methodology for WIL placements. It will incorporate a triangulated approach including student, organisation and university supervisor feedback. Preliminary results gained from this project will be discussed.

Argument: An evaluation methodology that is inclusive of a triangulated approach, would provide university stakeholders with comprehensive feedback that could be used to strategically inform continuous improvement efforts in Institutions in the areas of WIL placements.

Implications: The importance of triangulated data gathering leading to a comprehensive evaluation and subsequent improvement strategies will be concluded. Suggested evaluation process and potential tools will be presented.

Keywords: Work placements; evaluation; stakeholders; partnerships.

Introduction

The fundamental purpose of quality higher education is to enhance the skill of the student and to ultimately prepare them for employment after university (Harvey & Green, 1993). Because of the current skills shortage in Australia, this point is of great significance. The higher education sector must enhance the employability of its graduates as part of a wider strategy to increase the skills base. Furthermore, the dynamic and competitive nature of organisations, demands that universities deliver high quality work-ready graduates. That abilities should exceed class room based knowledge and technical skill (Freudenberg, Brimble, & Cameron, 2008). To address this shortage, higher education institutions need to provide quality educational learning experiences which bridge the gap between the skills learned in the classroom and those required for the workplace. Universities now have the challenge of embedding Work Integrated Learning (WIL) into the university curricula and then demonstrating its value.

WIL methods typically involve an interplay between workplace experience and formal learning. WIL methods are widely acknowledged for developing generic or professional skills and improving the employability and work readiness of students (Patrick, et. al., 2009; Murakami, Murray, Sims & Chedzey, 2009). For work placements, a type of WIL, the experience of work provides students with the opportunity to gain and “apply knowledge, skills and feelings in an immediate and relevant setting” (Smith, 2001). Consequently students are exposed to authentic work practices where conceptual change is gained through collaborative social interaction in the work context and reflection upon these experiences. The importance of work placements in the development of work readiness is clear.

While it has been recognised that work placements are an important feature to assist work readiness, there is little published empirical evaluation. Consequently, the effectiveness of WIL in contributing to the development of work readiness competencies remains to be understood (Martin, 1996). Australian academics have made a healthy theoretical and empirical contribution to progressing teaching and learning assessment. However, the current placement (unit level) evaluation appear limited. The value and benefit of placements are not easily measured. Conventional academic methods of evaluation for coursework units do not lend themselves to placement evaluation. Despite this, there is significant anecdotal evidence about the efficacy of work experience in general and of embedded work placements in particular (Crebert, 2004; Harvey, Moon, Gaell, & Bower, 1997). Effective continuous improvement involving ongoing evaluation is the cornerstone to analysing the effectiveness of WIL programs in realising the variety of positive outcomes purported in the literature. In this paper individual level student evaluation will be referred to as assessment as opposed to course level evaluation which we will call evaluation. This paper will offer a solution by integrating the current theoretical ideas into a continuous improvement evaluation of WIL placements. An initial discussion on the concept of placements will be presented. Components of WIL placements such as the development of competencies, constructive alignment and triangulation methods for unit level evaluation will be reviewed. This brief review will then inform an integrated approach to the evaluation and continuous improvement framework for placements, which will be discussed.

Work Integrated Learning -Placements

Industry based work placements have been reported to be a critical conduit to graduate work readiness (Richardson, Kaider, Henschke & Jackling, 2009). Industry based work experience, or placements can also be known as internships (Gibson, Brodie, Sharpe, Wong, Deane & Fraser, 2002), work placements (Reeders, 2000), fieldwork (Hay & O’Donoghue, 2009) industry-based learning (Gibson, et al., 2002), sandwich years (Bullock, Gould, Hejmadi and Lock 2009), job shadowing (Gibson, et al., 2002), apprenticeship (Gibson, et al., 2002), cooperative education (Reeders, 2000), practicum (Reeders, 2000), fieldwork (Allison & Turpin, 2004), and clinical placements (Booth, Collins, Hammond, 2009), but will be referred to as work placements in the current paper. Embedding work placements into course curricula has provided an important vehicle to assist new graduate work readiness (Richardson, et. al., 2009). It is therefore not surprising, that the number of work placements within undergraduate and postgraduate courses has proliferated, and consequently a greater number students participate in work placements (A. Bates, M. Bates, & L. Bates, 2007).

Evaluation of work placement outcomes and the student experience is typically more complex than evaluation of a standard university unit. The complexity may be due to the broad variation of work experience that the student is exposed to. Students are also likely to be working in different organisations, or working on different projects within their various disciplines. Adding to this complexity, the organisation supervisor is an additional stakeholder critical to the process, and who may ultimately judges student performance. Furthermore, although an organisational supervisor may complete an individual feedback form for their students, generally this information is not strategically aligned within a broader university evaluation process. Initial examination of the literature revealed that the multi-dimensional perspective is frequently theoretically proposed, but is not necessarily

incorporated into evaluation of placements. Inadequate evaluation and assessment of work placements can be caused by a lack of understanding of the nature of learning in the workplace. Foley (2004) noted that workplace learning can be influenced by personal, interpersonal, institutional, social and historical factors. Eraut et al, (1998) stated that workplace learning can be formal, informal, non-formal and incidental. Subsequently the measurement of learning and capturing individual learner progress is fraught with complexity.

As mentioned, although work placements are important and valuable for student engagement, learning, graduate employability and industry partnerships, there are few empirical studies or reviews that inform evaluation methodology for them. One pathway is to explore the possibility of a comprehensive approach to work placement evaluation by reviewing elements of the work placement process. The following sections briefly discuss work placement competencies, constructive alignment and the importance of triangulated approaches. The importance of integration of these elements to overcome theoretical gaps is highlighted.

The importance of identification of competencies to work readiness and work placements

Student work readiness and employability are a strategic priority for Australian Universities. Work readiness can lead to increased employability. Employability is defined as the personal qualities, skills of various kinds and subject understanding that enhance student capability to gain initial employment, maintain employment and obtain new employment. Therefore, employability skills are those skills that are relevant to obtaining and maintaining work (Harvey, 2001; McQuaid & Lindsay, 2005).

Universities maintain an explicit vocational role for students. In recognition of this every Australian university has developed a list of graduate attributes, which include the qualities, skills, and understandings a university community agrees its students would desirably develop. These attributes are developed during the candidature at the university and therefore guide the contribution the student can make to their profession and as a citizen (Bowden et al, 2000). Ideally the Graduate Attributes should be reflected in the objectives of each coursework unit demonstrating the link between the course unit and employability.

Referring to graduate employability Bridgstock (2009) stated that the graduate ideally “not only maintain and develop knowledge and skills that are specific to their own discipline or occupation but must also possess ‘generic’ skills, dispositions and attributes that are transferrable to many occupational situations and areas” (p32). ...generic skills have also been known as ‘core skills’, key competencies’, transferrable skills’ or ‘underpinning skills’ (Mayer, 1992). Work placement units have a role in providing some of those discipline specific skills that are often aligned to defined competencies and may be more specific to the placement unit objectives itself. Therefore, it is the learnings internalised by the student gained during the placement units where potential skills gained for work readiness and employability should be most apparent.

Current course evaluation surveys do not aim to, or provide enough information to adequately evaluate the work placement units. Some authors (e.g. Hay and O’Donoghue, 2009) have reported utilising a triangulated approach, that is, information sourced from students, placement co-ordinators and organisational supervisors to inform which competencies should be gained and assessed as part of the work placement unit. Green, Hammer and Star (2009) point out that there is debate and confusion regarding definition and implementation of graduate skills, attributes or capabilities.

A neglected source which could inform work competencies is the graduate who has recently completed the work placement unit. The evaluation of competencies sought from graduates would serve two purposes. The first purpose is to measure the effectiveness of the work placements once the graduate is employed. Assessment of whether the work placement has really met the learning

objectives of the work placement unit and contributed to work readiness would be realistically measured at this point. The second purpose of sourcing graduate feedback is to explore which competencies are required in their new positions. This would ensure that the competencies identified and measured within the work placement unit are relevant. Continual annual graduate feedback on competencies required in their employment would serve to provide both confirmation or expansion /reduction of current competencies as well as providing further assessment on the success of the learnings from the work placement. Consequently both aims would inform a unit level evaluation as well as provide part of the information needed for a continuous improvement approach.

Work Placement Learning and the Constructive Alignment approach

Learning theorists have consciously been working towards meeting the learning needs of students in a way that provide transferrable skills into the workplace. As early as mid seventies, Kolb and Fry (1975) outlined a model of learning whereby students learn through action, and then utilise a process of critical reflection and evaluation of the experience. Building upon this idea Brown, Collis & Duguid (1989) supported the notion that knowledge was a result of the activity, context and culture in which the knowledge is developed and used. Boud (1993) detailed a number of assumptions underpinning skill acquisition from experiential teaching- learning experiences. The assumptions include: experience is a foundation of, and stimulus for, learning; learners actively construct their own experience; learning is a holistic experience; learning is socially and culturally constructed; and learning is influenced by the socio-emotional context in which it occurs. Experiential learning has been incorporated to be part of the teaching curriculum. Work placements are an example of experiential learning (Gibson et al, 2002). In order to both assess and evaluate the effectiveness of experiential teaching and learning it is important that the learning is operationalised. Constructive alignment offers an approach to operationalise and therefore evaluate the learning that has occurred.

Smith (2008) stated that any learning environment contains learning objectives (LOBs). LOBs and the methods or activities used to assist students achieve these incorporate the teaching and learning activities (TLAs). Such activities may include: feedback, lecturing, and practice exercises. TLAs are implemented in order to achieve the LOBs and ultimately achieve the learning outcomes (LOCs). Constructive alignment theory promotes alignment between the LOBs, the TLAs and the assessed LOCs.

Figure 1: A Schematic diagram of the constructive alignment approach (Smith, 2008)



Of the several learning theories available the constructivist theory appears to be the most dominant in the literature and in application. Constructivism commenced in the field of cognitive psychology and has been more recently adopted in education (Biggs, 1996). The general concept of constructivism is the belief that ‘learners arrive at meaning by actively selecting, and cumulatively constructing, their own knowledge, through both individual and social activity’ (Biggs, 1996, p348). Biggs reports that:

the learner brings an accumulation of assumptions, motives, intentions, and previous knowledge that envelopes every teaching/learning situation and determines the course and quality of the learning that may take place.....the centrality of the learner is a given.

Biggs (1996) recommends that the constructive alignment approach is underpinned by the notion that: Teachers need to be clear about what they want their students to learn, and how they would manifest that learning in terms of performances of understanding’. For example, memorising and paraphrasing are not performances of understanding, recognising an application in a novel context is.

The performance objectives thus emerging need to be arranged in a hierarchy from most acceptable to barely satisfactory, which hierarchy becomes the grading system. Students are placed in situations that are judged likely to elicit the required learnings. Students are then required to provide evidence, either by self-set or teacher set tasks, as appropriate, that their learning can match the stated objectives. Their grade becomes the highest level they can match convincingly.

The constructive alignment approach has been utilised by universities to operationalise the alignment between learning objectives and learning outcomes. Students are assessed or mapped against their ability to achieve their learning objectives. This assessment is often performed at an individual level in order to provide students with individual level feedback and mark. At a group level, this information may not so readily be analysed but would be useful to inform the continuous improvement of work placements. Moreover, if the work placement experience provides a critical opportunity to meet work readiness needs, then the LOCs could also be measured at the graduate level which then also informs the effectiveness of the TLAs for work readiness.

The triangulated approach

As previously mentioned, the evaluation of educational programs in meeting their objectives is a difficult process partly due to the variety of stakeholders involved in making these judgements. In the educational setting, stakeholders may include students, university personnel, government agencies and graduate employers. The evaluation of a quality program is relative to each stakeholder (Harvey & Green, 1993) and therefore there is the potential for multiple viewpoints about what a quality program encompasses and what learning outcomes it generates. A comprehensive evaluation process should therefore take these different conceptualisations into account.

Hay and O'Donoghue (2009) conducted a study analysing 10 different work placement programs for Occupational Therapists. Most universities reported that they utilised a triangulated process of evaluation. The triangulated approach included receiving feedback from the student, the university based placement co-ordinator and the organisational supervisor. The triangulated approach to data gathering appears to be documented well in theory and is somewhat adopted in practice.

While the above may be true, value of the assessment is limited when the information is only utilised at the individual student level. In a separate process to student feedback for the purpose of their assessment, student feedback is often gathered at a group level through end of unit formal student evaluations. This separate process may not then be aligned and integrated with the placement and organisational supervisor feedback.

Evaluation

Evaluation is central to continuous improvement efforts in the education sector. Evaluation is the "process of determining the merit, worth, or significance of things" (Scriven, 2003, p. 15) and its "most important purpose is not to prove, but to improve" (Stufflebeam, 2003, p. 30). As reviewed by Harvey and Green (1993), one conceptualisation of *quality* in the educational setting is the transformative view which judges quality as the extent to which fundamental changes have taken place. Quality is measured according to the extent to which the student experience is enhanced; the extent to which the educational experience has been valuable in the development of the abilities, knowledge and skills. For instance, placement programs are implemented with the purpose of bringing about fundamental changes in the student, and work readiness skills. The nature of this perspective places the student at the centre of the learning process and also places the student at the centre of evaluation (Harvey & Green, 1992). Consequently, educational evaluation frequently relies upon information gathered via student surveys. This information then serves to inform the quality and effectiveness of teaching and course design. This approach requires students to assess effectiveness in

either teacher behaviour or course design. Smith (2008), reports that such evaluation systems assume a causal link. The approach is heavily reliant upon the assumption that the data gathered about the quality of teaching or course design represent the quality of learning that has been produced.

The core objective of work placement programs is the development of more relevant student abilities. It aims to transfer theory to practice, to develop 'generic skills' and improve graduate employability. These work readiness skills may include self-confidence, critical thinking, effective communication, problem solving, team work, and professionalism (Bates, 2005; Freudenberg, et al., 2008). A comprehensive evaluation would be required to determine whether a work placement unit is achieving this core objective.

The field is yet to arrive at a comprehensive evidence-based framework applicable to the evaluation of WIL (incorporating work placements). Highlighted by Reeders, "where evaluations have been undertaken, the results are mixed" (2000, p. 206) with respect to the effectiveness of work placements. The sensitivity of evaluation for achieving work readiness skills should be most apparent in the placement context. There, the value of the experience is solely based on the integration of learning in the workplace. Further, what remains unclear is the extent to which these programs contribute to these work readiness outcomes. There is a lack of a comprehensive evaluative frameworks to assess the quality and effectiveness of these programs (Martin, 1996; Reeders, 2000).

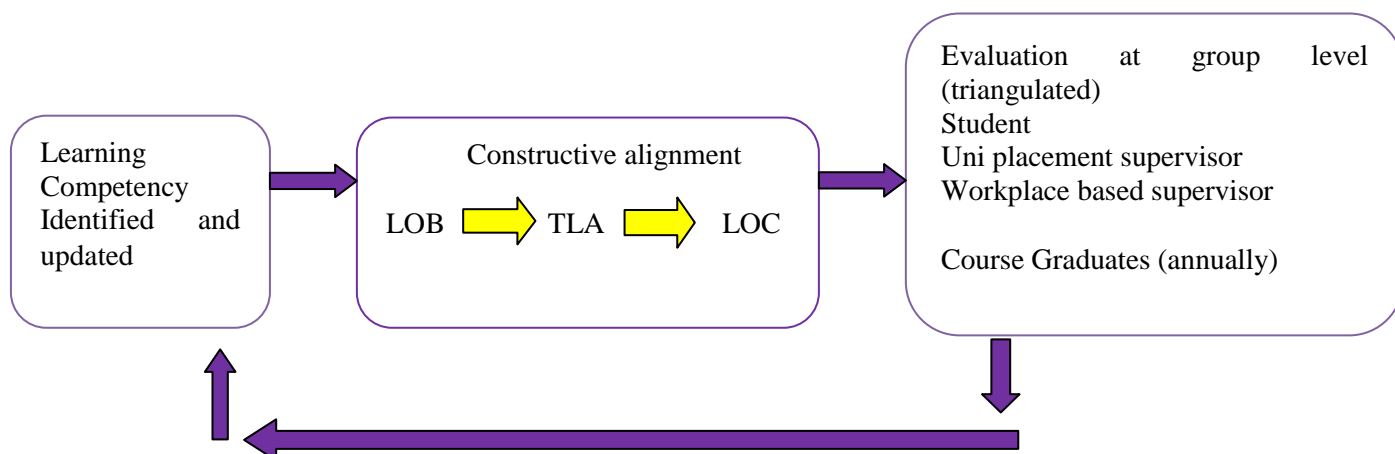
Several unifying evaluation frameworks have been offered. For example, Stufflebeam's (2003) developed the Context, Input, Process, and Product evaluations (CIPP). Smith (2009) proposed the Alignment, Authenticity, Integration and Administration (AAIA) framework and Richardson, et al 2009 developed the Context; Capability driven; Action Learning; Reflective; Developmental; Student-centred (CCARDS) framework. While useful and informative, none of these models incorporate graduate level feedback.

As noted by Lees (2002) "A more satisfactory measure of work placement evaluation is to a survey of graduates' satisfaction with their program of study and reflection on the skills they developed....rather than testing abilities" (p.11).

Integrating the approaches

The challenge is to develop a flexible framework with wide applicability across the spectrum of specific and generalist degrees. This should occur whilst maintaining a critical attitude to its pedagogical and vocational value. The development of competencies needs to be course specific, meeting the work ready skills and knowledge that is required in the graduates. The triangulated approach is sound for student assessment. Most importantly, it should ideally be analysed at group level to inform continuous improvement strategies. The commitment to constructive alignment in the context of work placement programs appears to be a useful operationalisation of teaching and learning objectives. It is proposed that when considered alone, the competency analysis, the triangulated and constructive alignment approaches are limited in their scope. Therefore they may have limited benefit in the evaluation and continuous improvement of placements. However, considering both of the knowledge bases together could contribute to an integrated approach, providing for a stronger platform for the efficacy of placement experience, see Figure 2.

Figure 2: An integrated model of the evaluation of work placements.



The advantage of utilising this model is that it allows analysis of group level data including student and past student experience. Potentially, this approach could be adapted to a wide range of industry settings.

Conclusion

The adoption of a comprehensive and integrated model to evaluate work placement units will be part of a continuous improvement framework which can be used for all work placement units. It is logical that each discipline be responsible for evaluating its placement programs. This then ensures that the vocational competencies informs the LOBs and the competencies are contemporary and relevant. Furthermore, the inclusion of graduate level evaluation is an accurate measure of whether the work placement objectives of work readiness have been met. The following recommendations have been made.

Recommendations

We recommend that:

- a triangulated approach to the collection of data is utilised to inform unit evaluation. The triangulated approach should ideally incorporate a fourth element and that includes the annual collection of graduate information;
- competencies that are utilised in industry, as described by the graduate feedback, be reviewed and potentially updated for inclusion into the placement unit competencies;
- that the updated competencies be translated across to the constructive alignment objectives of the placement unit, and;
- that this approach be trialled to assess the contribution to informing work placement unit evaluation.

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Capturing stakeholder perceptions of graduate capability development: Challenges associated with Graduate Employability Indicators

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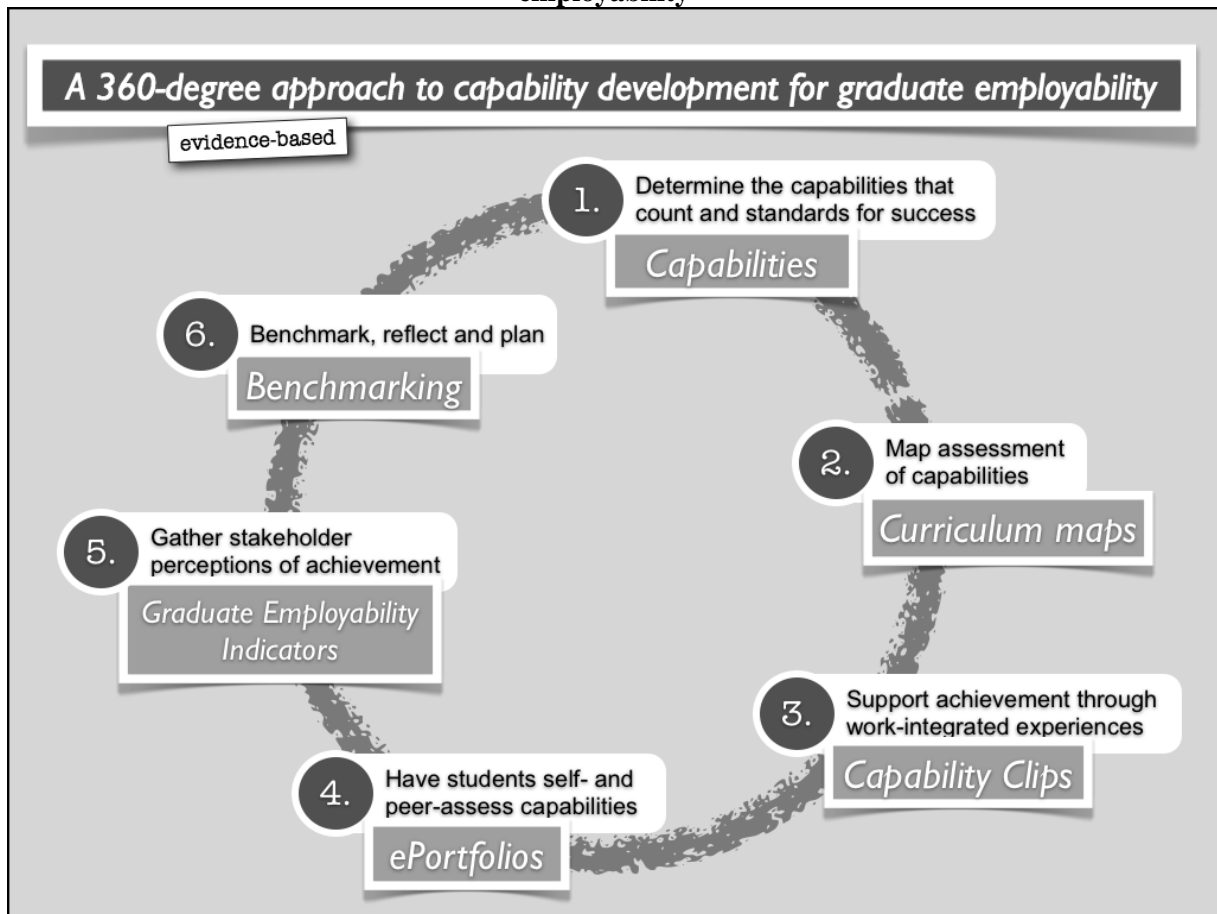
This paper reports on the use of the Graduate Employability Indicators, a suite of three online surveys for graduates, employers and members of the course teaching team, developed through the ALTC Project *Building Course Team Capacity for Graduate Employability*. The surveys were administered to graduates, employers and faculty staff for accounting and public relations/communications courses at four Australian universities in early 2010. Strategies used to identify and engage employers are discussed along with the impact that these strategies had on the total responses. Factors the ALTC Project Team found important were identifying and collating employer contacts, sending out reminder emails and establishing personal contact with stakeholders wherever possible. The paper also presents the lessons learnt through this survey process that may apply to activities undertaken by other researchers.

Keywords: academic, attributes, employability, employer, feedback, graduate

Introduction

Work-integrated learning (WIL) is becoming increasingly emphasised in Australian university curricula (Patrick et al., 2009). It must be borne in mind, of course, that WIL is a means to an end, and its goal is to enhance graduate capability development, particularly in relation to graduate employability. Graduate Employability has been an increasing focus of higher education institutions both in Australia and internationally, prompted by moves of government and the needs of industry. Graduate employability is not simply a graduate's ability to find work; it is more about ensuring graduates possess the skills, knowledge and attributes (herein after referred to as 'capabilities') required for future employment success (Precision Consulting, 2007; Yorke, 2004). This is illustrated in a quality assurance framework, called a 360-degree approach to capability development for graduate employability, developed as part of an Australian Learning and Teaching Council Fellowship (B. Oliver, 2009). Fullan and Scott maintain that the appropriate outcomes for a university course must be based the 'capabilities that count' for the graduate's early professional success in their first five years (Fullan, 2009). In the 360-degree approach, the goal is to design the curriculum to enable appropriate capability development so that graduates can be "successful in their chosen occupations to the benefit of themselves, the workforce, the community and the economy", particularly in their first five years of professional practice (B. Oliver, 2009) as shown in Figure 1.

Figure 6: A 360-degree evidence-based approach to capability development for graduate employability



More specifically, this 360-degree approach focuses on six aspects, culminating with benchmarking: Determining the capabilities that count for early professional success; Mapping where those capabilities are assessed in the formal curriculum; Supporting their achievement through work-integrated learning experiences; Having students self- and peer-assess, in reflective practice; Gathering stakeholder perceptions of achievement; and Engaging in benchmarking for continuous improvement of the curriculum (B. Oliver, 2009). All of these aspects are important and interconnected: stakeholder perceptions on the capabilities that count (aspect 5) can be used to determine the types of work-integrated experiences (aspect 3) that would support the achievement of these capabilities.

This paper focuses on the fifth point in the quality cycle described above: stakeholder perceptions of capability achievement for graduate employability. Currently, national indicators capture limited stakeholder feedback on the importance of graduate capabilities and their demonstration by new graduates. The ALTC project, *Building Course Team Capacity for Graduate Employability*, is a collaborative project between Curtin University of Technology, RMIT University, Victoria University and the University of Southern Queensland which is attempting to bridge this data gap and capture key stakeholder feedback (from graduates, employers and course teaching teams) on the importance and demonstration of employment capabilities by new graduates (up to five years). This feedback is obtained through the Graduate Employability Indicators. These new surveys are being used to capture perspectives on the 'capabilities that count' by graduates, employers and members of the course teaching team for two courses at each of the partner universities (Accounting and Public Relations/Communications). These two courses have been chosen as examples of an accredited course with clear industry links (Accounting) and courses with less clear accreditation links to industry

(Public Relations/Communications). Progress to date highlights the challenges of engaging stakeholders to provide their perspectives, particularly through online surveys which have become prevalent in many fields. The paper focuses on the strategies used to identify, contact and engage stakeholder groups, particularly employers, and suggests which approaches appear to be more successful, and which challenges continue.

Background

Many previous studies have highlighted the gap between what skills employers find important and what skills are demonstrated by new graduates (Archer & Davison, 2008; UK Commission for Employability and Skills, 2009) with “soft” skills (or graduate attributes) often considered to be more important than subject knowledge (or the particular degree studied) (Archer & Davison, 2008; Harvey, 1997). Previous studies have shown that the perspectives of employers differ from those of other stakeholder groups, such as students, graduates and academic staff members (Bhanugopan & Fish, 2009; Coll & Zegwaard, 2006) and differ based on the discipline area (Ng Poh Yen, Kamariah, Hw, & Huong, 2009).

Despite the importance of graduate employability, the major source of current data collected nationally and systematically on the employment of graduates is the Graduate Destination Survey: this captures information on new graduates’ employment or further study status, their employer and starting salary. There are no annual national indicators that regularly report employer feedback on the fitness for purpose of new graduates, although some Australian universities seek feedback from employers about the demonstrated capabilities of their graduates (B. Oliver & Whelan, 2010). Two examples are the Employer Feedback Survey developed by the University of South Australia as part of the Australian Learning and Teaching Council (ALTC) Teaching Quality Indicators project (Chalmers, 2010) and the *eVALUate* employer survey developed at Curtin University of Technology (Beverly Oliver, Jones, Tucker, & Ferns, 2007). The ALTC Competitive Grant, *Building Course Team Capacity for Graduate Employability*, is a national initiative that aims to capture and triangulate the perspectives of employers, graduates and the course teaching team on the importance and demonstration of fourteen capabilities Drawn from the National Survey of Student Engagement (NSSE) (Kuh, 2001), the Australasian Survey of Student Engagement (AUSSE) (Coates, 2009) and the Graduate Pathways Survey (Coates & Edwards, 2009). The surveys also contain demographic information and qualitative items for each of the stakeholder groups. More information on the survey instruments is available at <http://tiny.cc/boliver>

Specific studies designed to obtain employer feedback have used various methods to engage respondents, such as mailed surveys (Ng Poh Yen, et al., 2009), online surveys (both email and web-based) (Yun & Trumbo, 2000), telephone surveys and focused discussion groups (Liangrokapt, Samanlioglu, Leonard, Nault, & Harrison, 2002) with some utilising more than one of these approaches in an effort to boost response numbers (Yun & Trumbo, 2000). While the strength of mailed surveys lies in the ability to submit anonymous feedback (Yun & Trumbo, 2000), low response rates are a potential problem (Ng Poh Yen, et al., 2009) as the number of respondents is typically small and decreases with time as more higher education institutions seek employer feedback (Liangrokapt, et al., 2002). Emailed surveys generally receive lower overall response rates than paper-based surveys (Yun & Trumbo, 2000); however, for universities with limited resources, online surveys are less labour intensive. Mixed-mode approaches that utilise more than one contact method, plus a follow-up with contacts have resulted in more robust response rates.

The most effective approach to engaging respondents appears to be focused discussion groups or interview approaches, as these allow the researchers to examine issues in detail (Liangrokapt, et al., 2002). However, focus groups generally involve a small sample of potential respondents, are time-consuming and resource intensive and there is a limit to the number of topics that can be discussed. In addition, while focus groups can provide additional insights about the explanation and emotion behind

answers, they do not usually provide hard quantitative data or generalisable samples (Sink, 1991). Finally, focus groups require a skilled and experienced moderator to allow free discourse but maintain focus in group discussions, and this makes them less likely to be financially sustainable.

Given that there is no one method that is substantially more effective for obtaining employer feedback than any other, this study chose an online survey approach (communicated through email) for obtaining stakeholder feedback, with follow-up through personal contact wherever possible. This method was considered the most appropriate given that the aims for the project required quantitative data rather than qualitative information. Furthermore, as the purpose of the project of the data collection was to gather information that could be generalised for benchmarking purposes between partner universities, this survey method was thus considered to be the most appropriate and sustainable.

Methodology

The *Graduate Employability Indicators* are generally administered online. The project team augmented the online method by manual collection and collation of employer contacts from various sources in the institution, establishing relationships with academic teaching teams to identify possible employer contacts for the surveys and the dissemination and follow up of the survey instrument to employer contacts. The Heads of School of each of the chosen areas were also encouraged to provide employer contacts.

Course teams were fairly easily accessible within each institution, although work and time pressures did present some challenges. Members of the course teaching teams at each university had met with their project team member and the project leader to engage them in the project. Heads of School were contacted to distribute the surveys to their staff. Project team members were kept aware of the number of survey responses and continued to engage with the Heads of School to increase the responses. At one university where staff responses were low, academic staff members in one course were asked to fill in a paper copy of the survey at a staff meeting, with extra copies left at reception for those who did not attend. Their responses were then manually entered into the database.

While lists of graduates were fairly easy to obtain at some universities through alumni email mailing lists, not all of the partner universities had these systems established at the start of this project. Considerable time was spent prior to the implementation of this survey ensuring workable systems were in place, and such systems were trialled in the earlier pilots of the Graduate Employability Indicators. Graduates were contacted directly by alumni using these systems, and reminders were sent out to encourage responses. Some technical difficulties were encountered in the systems; for example, in one university there was a technical problem resulting in only some graduates receiving the emails. Such problems were identified and dealt with by alumni and the relevant project team member, with technical solutions or work arounds, such as manually emailing the graduates as was done in the previously mentioned example.

Engaging employers was perhaps the most challenging of the stakeholder groups. Many different lists of employers may exist within a higher education institution held by various groups such as careers, external relations and teaching academics. As there is little sharing between the lists, and often no coordinated approach to contacting employers, the resulting employer list requires careful collation to ensure that the same employer contact is not sent multiple invitations from the partner universities. This makes determining who to contact far more problematic for employers than it is for graduates or members of the course teaching team. The first challenge the project team encountered, therefore, involved obtaining a list of employer contacts, which required the collation of several different employer lists provided by academic teaching staff, careers centres, external relations and web searches. For the purposes of this project, employers were not limited to those who had employed graduates from the partner universities, but were interpreted more broadly as those who had employed

a 'new' accounting or PR/communications graduate. Australian employers from public and private companies were targeted, as well as organisations of varying sizes, to gather data on the breadth of graduate jobs within the industry. The project team originally considered offering an incentive prize to employers who participated, but this was not included based on advice from the project's external reference group.

The first employer lists generated for the project were collated from contacts held by individual academics, careers centre contact from the partner universities, external body websites (such as CPA Australia, Public Relations Institute of Australia), Career websites (both internal and external), Seek advertisements, and internal employers such as university accounting and public relations departments and relevant employers on university council or senate. The second employer lists were additional contacts from the above sources that had been obtained after the first mail-out, as well as Google searches for accounting firms and public relations agencies in Australia, targeting major companies operating in Victoria, Queensland and Western Australia. External Relations, a department at Curtin University, provided additional contacts. Emails were sent out to members of university council who were accountants and internal HR and accounting departments prior to the mail-outs from the project officer. These sources resulted in a list of employers totalling 313 unique email lists, of which 152 were accounting employers and 161 were public relations or communications employers.

The second challenge faced by the project team was getting contacted employers to respond to the survey. All employers were contacted by email by the lead university, to avoid confusion. In at least one case, the head of school assisted with a personal email to the employers. Although the literature suggests sending up to three reminders to increase responses (Yun & Trumbo, 2000), this was not possible to do this for all employer contacts by the time this paper was written. Additionally, the project team at one partner university attended a CPA Australia (formerly Australian Society of Certified Practising Accountants) meeting of employers with paper copies of the survey to increase the response rates..

Results

Graduates represent the largest of the stakeholder groups, so it is unsurprising that this group had the largest number of responses (450 in total for all courses in Accounting and PR/Communications). Graduates were contacted directly by the partner universities' alumni centres, which might have added an element of familiarity to the request. Graduates responded quickly to the surveys and reminders, as shown in Figure 1. Response rates are not reported here because of the unknown number of 'live' email addresses.

Figure 1: Graduate responses to the Graduate Employability Indicators over time

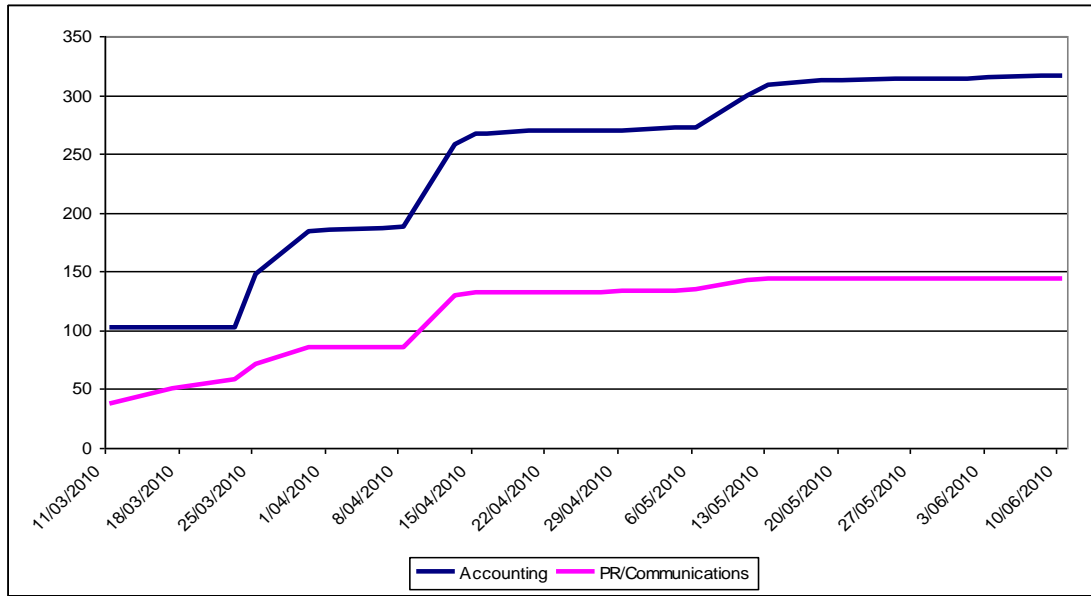


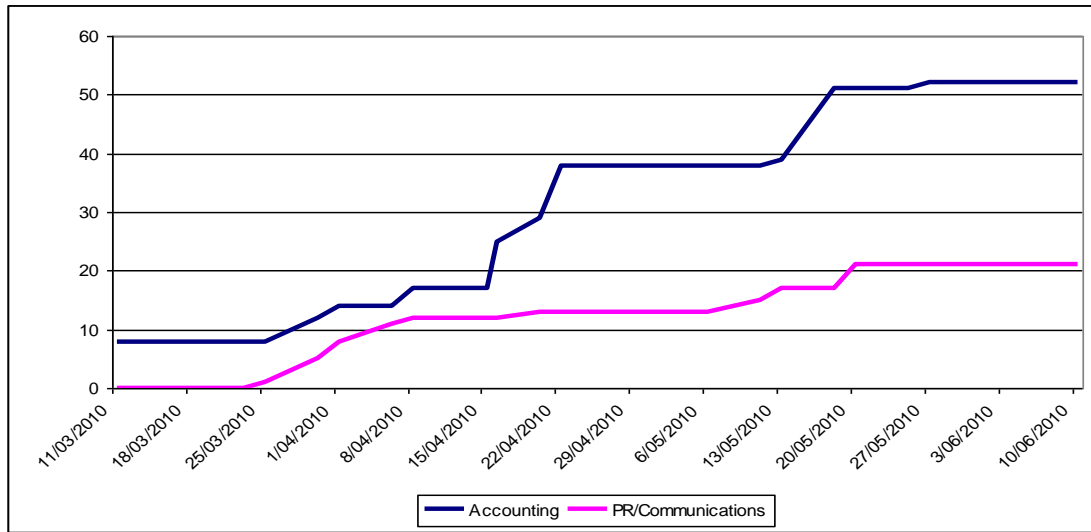
Table 1 shows the impact of sending out multiple follow-up emails to stakeholder groups, in this case graduates from one course at one of the universities. As can be seen from this table, the vast majority of total survey respondents provided their feedback as a result of the original email or follow-up, but sending additional follow-up emails did increase the total number of responses.

Table 1: Impact of multiple follow-up emails on graduate responses

	Total Number of responses	Cumulative percentage
Email + Follow-up	103	88.8%
Second follow-up	115	99.1%
Third follow-up	116	100%

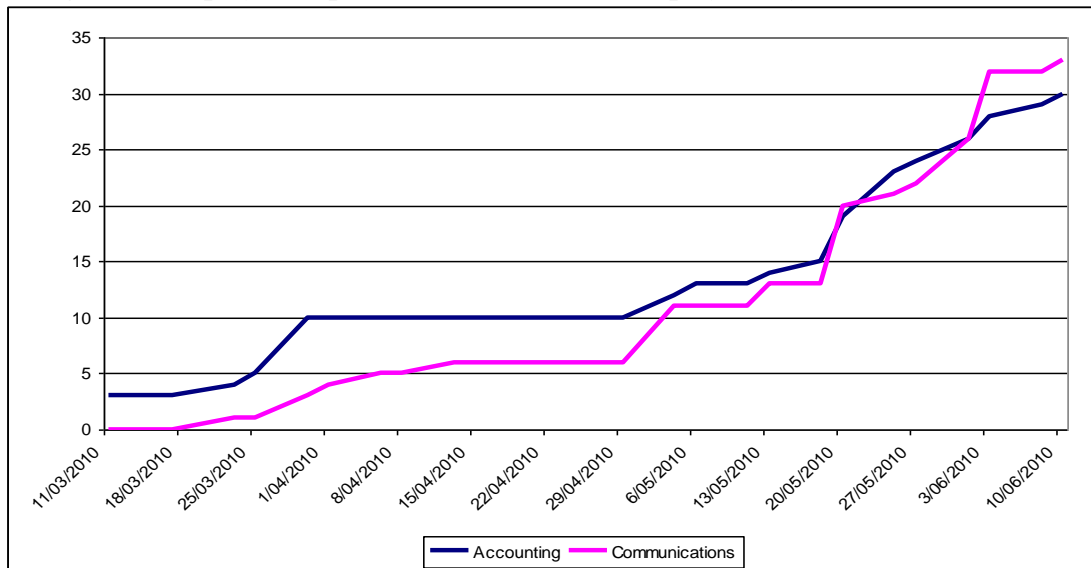
Members of the course teaching team responded more slowly to the survey than graduates did (see Figure 2), appearing to respond to the survey based on their workload and time constraints, rather than based on when they were notified about the survey. Seventy-three full-time, part-time and sessional or casual staff members of the course teaching teams at the four partner universities responded to the surveys, with full time staff making up the largest cohort (88.9% compared to 2.8% for part-time staff and 8.3% for casual or sessional staff members). Members of the course teaching team were contacted directly by their Head of School, which may have added an element of seniority as well as familiarity to the request. Targeting academic staff members in staff meetings greatly increased the responses.

Figure 2: Teaching team responses to the Graduate Employability Indicators over time



Sixty-three employers responded to the employer survey, of which 30 were accounting employers and 33 were public relations or communications employers. Like with the academic staff responses, employer responses are more staggered than graduate responses and lack the distinct increases associated with email-outs (see Figure 3). This is likely due to the staggered contact of employers by the project team, as outlined earlier. While increases in responses are seen that correspond to email-based mail-outs (25/03, 9/05, 11/05, 18/05) and reminder emails (29/04, 18/05), it is not clear if employers are responding to the emails sent out, or if they are previously contacted employers who have returned to the survey at a more convenient time.

Figure 3: Employer responses to the Graduate Employability Indicators over time



Discussion

Responses from graduates show the benefit of sending out reminders to stakeholders to increase the overall response rate (see Table 1). Graduate responses show clear and rapid increases in the number of responses at distinct periods associated with the alumni mail-outs and reminders (see Figure 1).

This quick response time has been cited as a major benefit of online surveys as opposed to traditional mail-outs (Yun & Trumbo, 2000). As the second and third reminders sent to graduates provided more responses, sending out more than one reminder should be considered in future and related surveys if time permits. The survey of graduates also highlighted the need to monitor the responses to surveys of this nature, in order to identify potential issues such as non-delivery of emails.

Members of the course teaching team, on the other hand, responded far more slowly than graduates to the request for feedback. This is likely due to time constraints faced by academic staff members, but the staggered responses seen in Figure 2 suggest that many academic staff members did return to the indicators at a less busy time period. Collecting paper-based surveys from academic staff members in staff meetings also greatly increased the response rates. The large number of responses from academic staff members suggests that members of the course teaching team will provide feedback if sufficient time is given. This aspect of the study also highlighted the importance of having high level engagement in such an exercise, as the Head of School played such a vital role in gathering course team feedback.

As the surveys are anonymous, we are unable to compare the employers who responded to the survey with the original survey lists. This makes it impossible to compare the response rates of employers known to the institution as opposed to those identified through seek advertisements and Google searches. However the total number of employer responses increased with each original mail-out, suggesting that employers will respond to a survey of this nature even if they do not have strong or established links to the institution. This suggests that, in the absence of established and coordinated approaches to contacting employers, effort should be made to identify a wide range of employers when seeking feedback of this nature, rather than limiting the contact to employers known to the institution. Universities should consider establishing a coordinated approach to contacting employers, as increasing contact and familiarity may improve engagement and responses from employers.

Conclusion

Many agree that university curricula should be designed to maximise new graduate achievement of the capabilities that count for early professional success, and that to do this within an evidence-based approach is essential. This paper confirms the challenges in obtaining the evidence, particularly from employers, graduates and teaching staff. This paper reports on a variety of strategies implemented within this project, and offers useful reflections that might also assist in boosting response numbers. . Enlisting the support of the teaching team is crucial, as they can provide additional assistance in identifying, contacting and engaging employers. In the main, they are also in the best position to effect change in the curriculum based on the evidence from other stakeholders. While it is possible to collate and collect additional contacts throughout the survey process, as was done in this study, the collation of a comprehensive list prior to the administration of the survey is preferable. Collating the list throughout the survey process requires ongoing comparison with existing contacts to ensure that employers are not approached multiple times, and results in multiple mail-outs that need to be managed. Finally, it is important to consider alternative ‘fallback’ methods of data collection (for example, paper versions of the survey where feasible) to enhance response rates at the beginning of the process. Such methods of data collection contribute towards the collection of evidence that may be used to indicate that work-integrated learning activities—in conjunction with the other aspects of the 360-degree approach described in this paper—are effective in enhancing graduate employability.

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The role of tertiary education in integrating professional contribution in the multi-disciplinary building design team

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The realisation of a client's brief in the construction industry requires the interaction of a range of specialist architectural, engineering and building professionals. If effective participation is sought to improve efficiency levels in multi-disciplinary building design-teams, motivational mechanisms (such as increased identification with disparate colleagues; over-arching goal acceptance; and, trust) are required to compliment expert technical input. There is a need perhaps to recognise that fulfilment of professional potential may best be found in combining particular skills efficiently in the participative building design-team. Findings from an attitude-scale of the construction professions are discussed in terms of the extent to which the values and expectations of organisational members influence the building design process and the final built product and, the extent to which addressing these variables at a tertiary educational stage, through structured cross-disciplinary project-work, has a potential to prepare practitioners for a more effectively integrated building industry.

Keywords: Interdisciplinary-construction, attitudes, education, building-information-modelling

Introduction

Modelling interdisciplinary contribution in the creation and maintenance of the built environment is increasingly important. The complex nature of specialist input into the design and construction process, and the importance of integrating specialist sub-solutions, has lead to the promotion of *Building Information Modelling* (BIM) as a means to facilitate appropriate virtual prototyping of development proposals to assist specification choices prior to committing to construction, both in new-build projects and life-cycle maintenance programmes. A raft of digital technologies are available in Australia; however the Built Environment Digital Modelling Working Group (Green, 2009) call for further research in this area, arguing that there is still much more work to be done in the development, promotion and utilisation of digital models that involve integration of technically disparate disciplines. If productivity and environmental gains are to be realised in the Australian construction industry through *Building Information Modelling*, practitioner *motivation to contribute* must be addressed.

Although 3D modelling and the concept of *BIM* is known and accepted in the Australia building and engineering industry, the Cooperative Research Centre for Construction Innovation (CRC, 2009) find that there remains communication anomalies, apt to effect negatively interaction between the consultant disciplines charged to realise the client's design brief for a project. It can be argued that there is somewhat of reluctance by design team specialists to share information in the medium of BIM. This reluctance stems from both risk-management worries, as well as a lack of trust in the input from other, contractually procured, 'team' members. There is a perceived lack of agreed standards and guidelines governing all input and this seems to have resulted in a lack of confidence (amongst architects and engineers) regarding the trustworthiness and reliability of some areas of specialist input data.

Building information modelling systems, seek to aid design-team integrated decision making (Al-Hajj et al 2000), however it is suggested by Hu (2008) and Arayici (2005) that computer-integrated-construction (CIC) mechanisms, whilst procedurally beneficial, have thus far failed to address fully requirement-gaps in information sharing. Whilst physical modelling shows how the components of a building project relate to each other (allowing a virtual environment for interdisciplinary professional interaction), Whyte and Scott (2010) argue that this process must also acknowledge the attitudes, values and distinct professional cultures of the specialist disciplines expected to use such models. The work presented below seeks to highlight attitude differences amongst building design team practitioners and how these might affect communication generally and, the willingness to embrace

BIM; evaluation of an attitude scale, developed here, given to a range of (over 500) students/professionals at the formative stages of vocational development, allows examination of educational initiatives in interdisciplinary, work-integrated-learning for construction designers and builders and, based upon the findings generated, identifies a way ahead to target positive attitudes more specifically.

Integrated Input

Today's construction 'teams', charged to realise a client's brief, are made up of a wide range of professions and disparate design and building specialists brought together (traditionally, by competitive tendering, procurement mechanisms) for one-off, short-term building projects; parties are contractually bound to design and then construct the required asset. Teams include not only, what are common held to be, the principal players such as architects, civil engineers, structural engineers, mechanical and electrical services engineers, quantity surveyors, project managers and superintending-officers; but also, building practitioners such as contracts managers, construction managers, resident engineers, quality control professionals, building surveyors, heating and ventilation engineers and environmental planners; as well as asset and facility management professionals, landscape architects, estate managers, interior designers and specialist subcontracting builders and building materials, fittings and fixtures suppliers.

Input from the various specialists in the team was (/is still) traditionally somewhat of linear process, starting with the architectural or civil engineering designer who then passes forward their respective overall concept designs for subsequent input by the other specialist practitioners. However, an increasing appreciation of the life-cycle requirements of complex building has led to recognition of the importance of a more integrated collective contribution at the outset. Building design (and construction) teams increasingly recognise the importance of allowing all members the opportunity for early, initial stage input, although such early input into the specifications of design is procedurally more difficult to organise. The system of BIM seeks primarily to address this difficulty.

Information and communication technology techniques, whilst able to order and make available specialist data-sets, must primarily seek to complement the interaction of the multi-disciplinary design team members (Ford 1994). Computer-integrated-construction and Building Information Modelling require recognition of the working practices and professional cultures to justify the levels of success forecasting for this growing cross-disciplinary integration medium. The decision processes of design are still likely to reflect the overall psychology of design team members, with software application unlikely, on its own, to enable optimum multi-disciplinary team interaction.

Problems do arise from the fragmentation of the design process and can be argued to affect performance negatively, although fragmentation is difficult to address since its roots lie in the historical development of the disparate construction professionals (Whyte 2007), Fragmentation can be argued to create professional dissonance which can be bad for the 'practical realisation' of innovative design. Powell and Newland (1995) argue that if professionals are to grow in understanding and work better together they need to know the pattern underlying any data set in their own and other's terms. In other words empathy with other professionals and acknowledgement of the *potential* of specialist databases, irrespective of the mode of communication-and-sharing adopted.

Studies that have examined technology with group processes and communication, show no significant improvements in equity of participation or decision consensus, and have found slower group decision speeds and a negative relationship to exist between quality of solution and consensus (Dennis 1988; Jarvenpaa 1988; Gallupe 1980; Kull, 1982). Although building-information-modelling/computer-integrated-construction is markedly different from group decision making systems, group consensus can be argued to contribute much to the effectiveness and efficiency of innovation construction. Reliance on technology limits the use of social cues in meetings and that this is especially problematic

for groups forging new relationships (Watson et al 1988). The limitation of social cues poses an obvious problem for groups like the traditionally procured building design team which is continually required to forge new project specific relationships.

Building that is aesthetically and functionally successful must necessarily extend the initial creative art of invention towards a practical functionality (Kolb 1990). In other words the specialist members of the building design team must collectively go beyond the single designer's engineering/architectural philosophical, metaphysical creative leap of imagination that initiated the innovative design concept; the next stage must necessarily move into the realms of the empirical practical application of existing knowledge and causality, represented by input from the other disparate construction specialist knowledge-bases able to provide solutions that link technical cause & effect to allow (innovative) built assets to function.

Beyond the first stage of the individual metaphysical creative spark, and after the second level of a collective application of empiricism and the addressing of causality, the building design decision-making process might be argued to then require, what Aristotle has famously termed the controlling hand of a person of practical-decisions with the ability to lead decision-making; such an individual must seek to avoid a situation where a single specialist is given the opportunity to settle a debate over other disparate specialist practitioners. Again it might be suggested that this is somewhat beyond the remit of BIM. Generally whilst a designer is charged with the initial creative art of invention, it is the specialist skills of the building design team (reasonably lead) that should be responsible for the realisation of innovative design; again, this process must occur irrespective of the technology that facilitates a sharing of information.

Integrating design teams by mathematical modelling

Group members will make choices about which features of building information modelling systems they are prepared to use. These choices are often linked to group dynamics, and information technologies that focus primarily on task completion without supporting personal relationships will be unsuccessful (Whyte & AlHajj 2000). To understand the technological effects, work towards BIM should not only focus on the packages of hardware and software but also on the specific task and social variables that are inherent in specialist interaction. In other words, the role of social relations remains important in collaboration and neglect of these relations may lead to failure of existing information technology systems to support adequately technological specialist interaction. This is not a new concept. Groundbreaking research undertaken in the Tavistock Report of the mid 1960's, through to work by Faulkner and Day twenty years later, then Latham in the mid 1990's as well as recent initiatives such as the UK government's raft of guides and documentation to encourage 'achieving excellence in construction' all indicate a relationship between performance of the construction design team and, the (perceived hierarchal) orientation of the professions that make up the team.

Given the calls from recent commentators on building information modelling in Australia (CRC, 2009; Green, 2009) there remains a need to examine communication anomalies, negative consultant interaction, a reluctance to share information, and a lack of trust between the construction design team members. It is argued that the case-study presented below begins to explore these issues.

Attitude Study

The examination presented below looks at inter-disciplinary values held by building design team members at their formative stages, towards analysis of the professional relationships that require collaborative effort to fulfil respective objectives. The role of social relations in the collaborative process and communication in the building design team are seen as a function of disparate

professional cultures; these require to be addressed if local tools such as the Australian building information modelling system are to integrate successfully different specialist knowledge bases.

Digital representations of innovative ideas require reaction and response prior to incorporation. Specialist data-files may be shared and integrated into the whole only after consensus has been reached over their positive contribution to the scheme. Although design teams may well use new technology to relay scheme design ideas to colleagues, the facility to empathise with disparate specialist suggestions remains rooted in professional culture it might be argued. The study was conducted to explore the impact of attitudes and values held about peer groups on inter-disciplinary processes, irrespective of the means of communication. Discussion below highlights the major findings.

Case-study sample

The experimental case-study sample group was made up of 534 respondents from five different Universities pertaining to eight undergraduate degree courses that encompassed: firstly, architectural design orientated course structures; secondly, construction economics and management courses that concentrate less on design and more on the cost-engineering and building organisation and control of the process, and; thirdly, building surveying and building engineering courses that seek to develop knowledge of minor building design work and the effect on maintenance and life-cycle asset refurbishment and retrofitting. These university disciplines and their respective course make-ups were held to be representative of education for today's construction industry. Respondents were categorised by university discipline/course, stage of study, as well as pertaining to: on the one hand, disciplines taught in isolation and segregated from the other courses tested, and; on the other hand courses that participate in educational initiatives designed to encourage multi-disciplinary building-design activities (periodic integrated workshops involving many courses together in role-play design-projects, where an additional comparison was made of respondent responses both 'pre' and 'post' participation in structured integrated project-workshops).

Findings: attitudes influenced by course-enrolled

A Likert-style attitude-scale questionnaire was devised. This attitude-scale questionnaire was developed by the author from existing historical work that sought to identify a means to rank and rate what design disciplines thought of their own profession as well as their disparate construction colleagues in terms of social status, and contribution to the building industry. (Higgins 1965; Stringer 1970; Faulkner 1986). The age of these sources detracts little from their relevance to the contemporary multi-disciplinary building industry, where building-information-modelling (BIM) (re)emphasises the need for today's practitioner to trust (and have a positive attitude towards) the reliability of input from disparate colleagues, into an increasingly remote BIM overarching design-database environment.

Using the research papers identified in the paragraph above, factors that influence building design team (disparate profession) member interaction were identified and included: social status; contribution to the building industry; orientation toward other disciplines; information handling; usefulness of information generated; and, level of training and education received. These were and are considered important indicators of how an individual might perceive professional relationships with design team colleagues from other (building related) disciplines. Forty-two statements were devised to reflect the factors identified; these were formally stated and randomised into a questionnaire to allow a respondent to agree/disagree (in degrees), and placed alongside a covering sheet that requested general data (age group, domicile and the like) about the respondent themselves. To establish the internal validity of the questionnaire (to verify that the statements were able to measure attitudes held towards other building design disciplines), a standardised validation process was

conducted (Oppenheim 1992); after internal validity, and reliability was successfully conducted (using a test-retest reliability statistical Spearman's rho coefficient of correlation), the resultant (Likert) Attitude Scale Questionnaire tool of 24 statements (developed by the author) to allow sensitive measurement of favourable or unfavourable feelings towards disparate building disciplines, was deemed reliable and ready to use and then given to a preselected sample of 534 respondents, that reflected the range of building design team professions and respective (tertiary) educational routes.

A discriminant function analysis was carried out on the data set of 534 attitude scale questionnaire responses. This allowed an analysis and identification of 'groupings' on the basis of independent variables; potential predictors of attitude scale scoring included: age, construction industry experience, course undertaken, curriculum structure full or part-time, parent/guardian occupation, gender, university attended, and current stage of studies. Discriminant analyses were ordered by size of correlation within the function.

The variables of '*Course*' and '*University*' were found to have the largest absolute correlation with the first and second discriminant function stages. In other words '*Course*' and '*University*' were identified as contributing most substantially to differences in group scores.

Further analysis of '*University*' found this independent variable to be of no further statistical significance in attitude scale scoring. No significant differences were recorded for the non-parametric Kruskal Wallis 1-way ANOVA test concerning overall attitude scale scoring at the universities (U1, U2, U3, U4, and U5) used in the study. No significant differences were recorded for the Mann Whitney U Wilcoxon Rank Sum W test concerning overall attitude scale scoring in the two universities (U1 & U2) that contributed the largest number of respondents. Based upon these tests, the variable of '*University*' is *not* seen to be a *significant* indicator of attitude score.

Examination of the variable of '*Course*' on the other hand, produced results indicating that this independent variable *was* indeed responsible for statistically significant differences in attitude scale scoring. A non-parametric Kruskal Wallis 1-Way ANOVA test of the mean rank student attitude scale scores for the disciplines of Architecture, Building Design Engineering, Construction Management/Quantity Surveying, Building Surveying, Landscape Architecture, Estate Management, Environmental Planning, and Interior Design records a highly significant difference between the different course disciplines. Further examination of the test allows inference that the mean ranks displayed by the disciplines of Architecture, Building Surveying and Construction Management/Quantity Surveying are considerably lower than the other five disciplines used in the study. In other words Architecture, Building Surveying and Construction Management/Quantity Surveying have less favourable attitudes towards colleagues than the other five disciplines. Mann Whitney Wilcoxon Rank Sum W tests further explored this grouping and found that there was no significant difference between attitude scale respondents from Architecture and Construction Management/Quantity Surveying who, interestingly, were linked by their mutual unfavourable attitude towards their disparate peers.

Results highlight the variable of '*Course*' as influential in the contribution to group difference in attitude scale scoring. Findings reflect the traditionally accepted truism that suspicion exists between the 'design element' (courses & practitioners) and the 'building management element' (courses & practitioners) of the traditionally procured building design team. Given that 'course' is found to influence group attitudes towards others, adherence to traditional vocational courses is found to influence attitudes held towards professional peers; negative attitudes are apt to influence negatively the communication process of the multi-disciplinary building design team.

Findings: addressing negative attitudes by cross-course project work-shops

Educational initiatives for project-work to integrate the different courses that make-up the multi-disciplinary design team, stem largely from both industry and academia's wish to improve professional interaction (Andrews 1992). Educators in the 8 courses at the 5 universities chosen for this study were similarly inclined to seek to improve interaction and communication between the disciplines, and by implication address (what was proven empirically by the application of this attitude-scale to be) negative attitudes held by certain courses about other courses; the means to improve communication at the locations in the study was by small, integrated cross-course project workshops. These cross-disciplinary projects then allowed the application of the Likert-style attitude-scale questionnaire developed by this study, towards an analysis and direct comparison of attitudes measured firstly before, and then subsequently after, participation-in (and completion-of) small cross-disciplinary project-work undertaken.

Further examination of approximately one-third of the sample was carried out. Non-parametric tests allowed assessment of the significance of differences (before and after changes) in attitudes towards other courses as a result largely of participation in small interdisciplinary-workshops (shared undergraduate project-work).

Results found that the '*staging*' of the work-shop projects in either the first, intermediate or final years of a student's progression through the course, was a key factor.

Early stage integrated projects did not produce a statistically significant change in attitudes. In other words, first-year students did not change their (relatively positive) attitudes towards students from different courses as a result of participation in interdisciplinary projects.

Intermediate staging of cross-disciplinary project work was found to be the most effective in improving the somewhat negatively held attitudes towards those from courses different to the respondent's own (attitudes which had, interestingly, grown somewhat more negative after the first year). In other words students in the middle years of their undergraduate studies did, after participation in cross-disciplinary workshops that sought an element of specialist input to fulfil overall goals, see students from other courses in a more positive light.

Students in the final-year of their undergraduate studies who participated in cross-course project work, did not change attitudes after participation in cross-disciplinary workshops; if anything project work reinforced (albeit in degrees which were not statistically significant) previously held (relatively negative) attitudes towards those from courses other than their own.

Generally this further analysis found that a respondent's stage in a course (first-year, intermediate years or final year), as well as the content of interdisciplinary initiatives play an important part in addressing attitudes displayed by students from specific courses towards disparate peers. The educators in this study were informed that the 'best' results might be expected to come from interdisciplinary projects at the intermediate year of study, where disparate team members were able to contribute to group efforts in small specialist, discipline-specific ways.

Case-Study Findings: attitudes differ but may be addressed

Results show that the particular vocational course of study undertaken by a professional during formative development is a key contributor to design team attitude difference. Courses, and by extension, belonging to a particular profession, influence group differences in attitudes.

Mutual enmity between courses (professions) was found to increase after the initial stages of vocational education.

Attitudes displayed towards disparate professionals became significantly (statistically) less favourable and less empathetic as the student progressed through their full-time course of study.

Final stage students were found to display little affinity towards those from different courses; indeed inter-disciplinary project work, conducted at the final stage to encourage inter-disciplinary integration resulted instead in increased enmity to those from other built-environment courses.

On the other hand, it was found that project workshops at the intermediate stage of courses with a small requirement for integrated specialist input did in fact result in changed (and improved) measured attitudes displayed by one course towards other participating courses, after participation in the workshop.

Different patterns of thinking can lead to a reduction in respect for, or lack of trust in professional colleagues and that consequently the building *process* suffers. Educators may be able to address this through cross-disciplinary project work but the staging and content of these workshops require staging at the intermediate years with requirement for small specialist contributions. It was found that project workshops at the intermediate stage of courses with a small requirement for integrated specialist input did in fact result in improved measured attitudes displayed by one course towards other participating courses

Future recognition of professional dissonances in BIM

The research conducted suggests that vocational education instils attitude differences amongst building design team members, instilling professional cultural differences which in turn impact upon communication and integration in the multi-disciplinary building design team. Participation requires high levels of integration to achieve organisational innovation solutions. The social process of communication and in particular the individual variables of the innovative process of an organisational team provide the key to effective integration.

Analysis of the use of new *building information modelling* techniques require going beyond a somewhat simplistic assessment of how to input and integrate stand-alone specialist databases to improve the strained social processes of communication in the building design team. In the main, information technology and BIM systems seeking to integrate building-design knowledge-bases must first understand the integration process of the professionals who will use the packages. Systems must acknowledge the building blocks of professional integration. Communication is seen as a function of a cultural systems, where culture is derived from attached values, and selected ideas, and where values are applied to the objects of need desire and attitude, and the extent to which attitude is open to modification from interdisciplinary initiatives during tertiary education. Based upon the discussion above it is argued here that BIM software support is unlikely, in isolation, in instil in the user empathy with disparate professional objectives.

Conclusion

Innovative designs must acknowledge holistic specialist input to address sustainable innovation design but the opportunities for doing so are restricted, to a large extent by interdisciplinary disharmony. BIM presents a means to address inter-disciplinary discord but must acknowledge the attitude, values and distinct professional cultures of the specialist disciplines expected to use such technologies.

BIM is a way forward but case-study findings show that building-design-team professionals at the formative stages might be somewhat disinclined towards the integrative dictates of an IT package.

Construction industry practitioner attitudes, arising during the vocational educational years of professional development, can be expected to persist no matter the method of integration. Physical and mathematical modelling by industry through *BIM* may begin to address the integration requirements of knowledge bases but it is unlikely to improve the integration of the specialist themselves who have registered their mistrust of the BIM input process.

Educators and the professional bodies that validate courses are charged to assist in addressing this attitude of mistrust that surrounds BIM systems. Future work requires to ensure that users are able to empathise and trust the value of respective specialist input by other disparate professionals, towards realisation of optimum technologically complex solutions to clients' building needs.

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Architectural Work Experience: An Analysis of Employers' and Students' Assessments and Students' Comments

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A survey was undertaken of the practical work experience undertaken by 81 final year architectural students in 2009. This paper provides an analysis of the assessments submitted by the students and their employers regarding the students' work performance and experiences in four categories and compares these results with a previous survey undertaken for the period 2000 to 2007. The submissions were the participants' opinions regarding the work performance, the discipline skills developed and the linkage between university and learning and workplace. The 2009 survey showed that the high standard achieved in 2000-2007 was maintained and slightly improved in 3 of the 4 categories. The exception was the design category which experience a small reduction. In addition an analysis was made of the students' comments which show that students placed great importance on the work experience as a significant segment of their architectural education. The work experience enabled them to apply in real projects the theory obtained at university and this assisted them in overall academic performance. An interesting aspect was that a number of students because of their long work experience were given increased responsibilities at work which improved their confidence and future employment opportunities. As a result of the analysis of the survey and the architectural students' comments, it is suggested that there are 3 key elements to be met for any work experience component in a Work Integrated Learning program to be successful. These elements are (1) relevance of work experience; (2) adequate period of employment; and (3) development of required skills.

Keywords: work experience, practice, architecture, assessment.

Introduction

Due to the needs of industry and government, universities in recent times have placed increased emphasis on improving students' employability through work experience (Franz, 2008; Orrell, 2004). Based on the work component in the architectural program at the Queensland University of Technology (QUT), the success of an architectural work experience program appears to be influenced by the relevance of program as viewed the students, employers and university staff; the period of employment and the development of skills that complement the students' academic program. This paper analyses the assessments of the students' performance provided in 2009 by architectural students and their employers and compares the 2009 results with an earlier survey undertaken for the period 2000 to 2007. The aims of the second survey were to establish if the program was still effective; to determine if the results were similar in the two periods; and to obtain the students' views on the relevance of the modified 2009 program. The other change since the 2000-2007 survey was the reduced architectural employment opportunities that have continued since the economic crisis that occurred in late 2008.

Work Program and Assessment Method

The work experience requirement was a compulsory unit for all architectural students in the QUT architectural course up to and including the class of 2009. The students were required to obtain their own employment. Under this arrangement the students were free to move between architectural offices and QUT avoided the problem of inappropriate job placement of a student as identified by Weisz and Kimber (2001). Up to October 2008 there were insufficient architectural students to meet the needs of the local architectural firms due to the building boom at that time. In October 2008 a number of student had their employment terminated as a result of the global financial crisis. However, it was found that these students had either obtained the minimum work experience of 26 weeks required by the program earlier or were able to obtain architectural work by mid-2009 as an outcome of the Australian government's education building stimulus program.

Due to a course change in 2009, the work experience unit was given reduced credit rating and in keeping with this change the mandatory minimum period of employment was reduced in 2009 to 26 weeks as opposed to 72 weeks required in the period 2000-2007. Also in the 2009 program, assessments were only required for 4 categories as opposed to 5 categories in the 2000-2007 survey. The 4 categories of work were the same in both surveys and they were (1) architectural design work; (2) architectural documentation; (3) building site surveys; and (4) overall performance of the architectural work experience program. The surveys required the students and their employers to assess from their perspective the same four categories of work using the same grading scale. At the request of the employers a ‘fail’ grade was not used as the employers did not want to record an academic ‘fail’ for a student. However, since the student was being paid and if the student was not meeting the employer’s requirements an excuse was soon found to terminate the employment which in fact was another way of recording a fail situation. A student in this situation then would have to find another employer who would employ them to enable them to obtain the required experience and in some cases this delayed their graduation. In the 2009 survey there were 81 assessments received from both students and employers. In the 2000-2007 survey there were 398 student reports with 107 in 2007, 58 in 2006, 37 in 2005, 34 in 2004, 36 in 2003, 44 in 2002, 46 in 2001 and 36 in 2000 (Williamson, 2008).

In both surveys the assessment procedure was kept simple to achieve cooperation of the employers. In some respects the system adopted has some similarities to the system developed by D. Kirkpatrick (Guerra-Lopez, 2008). The surveys focused on the participants’ opinions, the discipline skills developed, and the linkage between university learning and workplace performance. In using personal opinions it is acknowledged that “where people are involved, absolute objectivity is highly unlikely” (Guerra-Lopez, 2008). Nevertheless, the opinions expressed provide a reasonable indication of the performance of the program, the employers’ assessment of the students’ performance, and the students’ assessment of the benefits of the work experience in the four categories.

Design Work Assessment

The students were required to obtain experience in the schematic design stage and/or the design development stage of an architectural project. The design assessments received are shown in Table 1.

Table 1: Design Work Assessments

	Not Applicable		Excellent		Good		Fair		Pass		Poor		Excellent + Good results	
	E	S	E	S	E	S	E	S	E	S	E	S	E	S
2009			38.3%	28.4%	48.1%	53.1%	13.6%	17.3%					86.4%	81.5%
2007		2.5%	34.4%	22.5%	62.5%	62.5%	3.1%	12.5%					96.9%	85.0%
2006			38.2%	22.4%	58.2%	72.4%	3.6%	5.2%					96.4%	94.8%
2005			30.0%	13.1%	65.0%	68.4%	2.5%	18.4%	2.5%				95.0%	81.5%
2004			43.6%	12.1%	43.6%	75.8%	10.2%	12.1%	2.6%				87.2%	87.9%
2003	2.3%	2.8%	37.2%	16.7%	46.5%	58.3%	9.3%	19.4%	2.3%	2.8%	2.3%		83.7%	75.0%
2002			29.2%	31.1%	64.6%	51.1%	6.3%	11.1%	4.4%		2.2%		93.8%	82.2%
2001			44.9%	22.7%	46.9%	68.2%	8.2%	9.0%					91.8%	90.9%
2000	2.6%		39.5%	13.9%	52.6%	72.2%	2.6%	8.3%	2.6%	5.5%			92.1%	86.1%

E = Employer’s evaluation

S = Student’s evaluation

Although in the 2009 employers' assessments there was a slight increase in the 'excellent' results when compared with 2007 results, there was a significant reduction in the 'good' and a noticeable increase in the 'fair' results. These results indicated that there was an increase in the number of students not meeting their employer's design expectations. In the 2009 students' assessments there was a significant increase in the 'excellent' results but a noticeable decrease in 'good' results and an increase in the 'fair' results. The combined excellent plus good results by employers and students were noticeably lower than in the years 2004 to 2007 which was not expected. The student results indicate that in 2009 a noticeable number of students had the view that they were not given adequate design experience. It was interesting that there was no 'pass' and 'poor' assessments by employers. (In the 2000-2007 survey the N/A results were incorrect submissions by the employers.)

Documentation Work Assessment

Documentation work covers preparation of contract documents, working drawings and architectural detail drawings. Documentation work is the main activity of architectural students working in architectural offices. If students are not performing in this area, past experience has shown that their employers soon find a reason to terminate the employment of the students. Based on this knowledge plus the current limited employment for architectural students very good results were expected in this category (Table 2) but instead there was a slight decrease. Most students are aware that in order to retain their employment they now have to perform and this is supported by the reduction in the 'fair' results. The inclusion of 'pass' results in 2009, was not expected.

Table 2: Documentation Work Assessments

	Not Applicable		Excellent		Good		Fair		Pass		Poor		Excellent + Good results	
	E	S	E	S	E	S	E	S	E	S	E	S	E	S
2009			50.6%	50.6%	45.7%	48.2%	2.5%	1.2%	1.2%				96.3%	98.8%
2007			56.3%	65.0%	40.6%	30.0%	3.1%	5.0%					96.9%	95.0%
2006			49.1%	58.6%	49.1%	39.7%	1.8%	1.7%					98.2%	98.3%
2005			42.5%	35.1%	52.5%	62.2%	5.0%	2.7%					95.0%	97.3%
2004			41.0%	29.4%	56.4%	70.6%	2.6%						97.4%	100%
2003			48.8%	33.3%	39.5%	55.6%	9.3%	11.1%			2.3%		88.8%	88.9%
2002			50.0%	60.0%	45.8%	37.8%	4.2%			2.2%			95.8%	97.8%
2001			52.1%	42.2%	43.8%	48.9%	4.2%	8.9%					95.9%	91.1%
2000			41.6%	46.0%	52.8%	51.4%	2.7%	2.7%	2.7%				94.4%	97.4%

E = Employer's evaluation

S = Student's evaluation

Building Site Work Assessment

This area of activity involves the students being involved in collecting site information for an architectural project. They were only required to have at least one experience in this activity. Most students had the view that they were given insufficient experience in this category. In the 2000-2007 survey some firms did not allow the students to do site investigations which accounts for the N/A results. In those cases the students had to obtain the experience by being an observer on a site visit

with other firm. Although there was an improvement in the combined ‘excellent’ plus ‘good’ results from employers there was an unexpected significant increase in the ‘fair’ results from employers. One can only assume that some students were not very useful in obtaining site information. The combined excellent plus good results for 2009 compared well with those results for 2006 and 2007. The assessments received are shown in Table 3.

Table 3: Building Site Work Assessments

	Not Applicable		Excellent		Good		Fair		Pass		Poor		Excellent + Good results	
	E	S	E	S	E	S	E	S	E	S	E	S	E	S
2009			33.3%	22.2%	58.0%	55.5%	8.7%	19.8%		2.5%			91.3%	77.7%
2007	3.1%		34.4%	19.5%	56.3%	58.4%	3.1%	19.5%		2.4%	3.1%		90.7%	77.9%
2006	1.8%		23.6%	12.1%	67.3%	48.3%	7.3%	39.7%					90.9%	60.4%
2005			12.5%	10.8%	82.5%	75.7%	5.0%	13.5%					95.0%	86.5%
2004		5.9%	33.3%	8.8%	66.6%	61.8%		23.5%					100%	70.6%
2003	9.3%	11.1%	16.1%	11.1%	72.1%	58.3%	2.3%	13.9%		5.6%			88.4%	69.4%
2002	2.1%		29.2%	22.7%	58.3%	63.6%	8.3%	9.1%	2.1%	4.5%			87.5%	86.3%
2001	4.3%	6.4%	36.2%	27.7%	59.6%	53.2%		12.8%					95.8%	80.9%
2000	10.5%	2.8%	34.2%	22.2%	50.0%	41.7%	5.3%	19.4%		13.9%			84.2%	63.9%

E = Employer’s evaluation

S = Student’s evaluation

Overall Assessment of the Program

Table 4: Overall Assessments of Program

	Not Applicable		Excellent		Good		Fair		Pass		Poor		Excellent + Good results	
	E	S	E	S	E	S	E	S	E	S	E	S	E	S
2009			40.8%	32.1%	58.0%	67.9%	1.2%						98.8%	100%
2007			46.9%	27.5%	50.0%	72.5%	3.1%						96.9%	100%
2006			38.2%	29.3%	61.8%	70.7%							100%	100%
2005			25.0%	8.1%	72.5%	91.9%	2.5%						97.5%	100%
2004			33.3%	2.9%	66.7%	91.2%		2.9%		2.9%			100%	94.1%
2003			30.2%	13.9%	62.8%	75.0%	4.7%	11.1%	2.3%				93.0%	88.9%
2002			39.6%	18.2%	56.3%	81.8%	4.2%						95.9%	100%
2001			41.3%	23.9%	52.2%	67.4%	10.9%	4.3%					93.5%	91.3%
2000			39.5%	22.2%	55.3%	66.7%	2.6%	8.3%	2.6%	2.6%			94.8%	88.9%

E = Employer’s evaluation

S = Student’s evaluation

As indicated in Table 4 the results obtained were very good. The student assessments in 2009 were a surprise with no assessments outside the ‘excellent’ and ‘good’ category. Over the years in discussions with students there were always a couple of students who considered that they could have had a better work experience but this situation was not apparent in the results for 2009.

Analysis of Assessments Received

Except in the design category, the combined 2009 'excellent' plus 'good' results were in line with the results obtained in 2006 and 2007. In the design category the reduction in the combined 'excellent' plus 'good' results was due to a significant increase in the 'fair' assessments by employers and students which indicated some dissatisfaction by the employers regarding the standard of the design work by the students and the some dissatisfaction by students regarding the design opportunities provided to the students by some architectural offices. In the other categories of documentation, building site work assessment and overall assessment of the program the combined 'excellent' plus 'good' 2009 results showed that the high standard found in the 2000-2007 survey has been maintained in the 2009. To provide a checking system for the submitted assessments sheets, the students were also required to submit Architects Accreditation Council of Australia (AACA) Log Sheets signed by their employers showing the type of work undertaken by the students. Since these log sheets could be submitted by the students to the Board of Architects when they applied for registration their employers were careful with the information on the log sheets. If this information was found to be incorrect then the registered architect would be investigated by the Board of Architects and this could result in a fine or possibly de-registration.

In analysing the reports from the students it was obvious that practically all the students had remained in the employment of one firm. In previous years the returns clearly showed that a noticeable number of students changed employment during their work experience period to enable the students to obtain wider work experiences or to obtain improved employment conditions or increased salary. In discussions with a number of students, they revealed that the current architectural employment situation now limited the opportunity to move between firms and in order to retain their job they had to meet the employer's requirements.

Students' Comments

In addition to the assessments the students were required to submit a short report and provide comments on (a) whether the work experience assisted their architectural studies; (b) whether the experience expanded their understanding of the profession; (c) whether the work experience improved their communication and team building skills; and (d) provide any other comments that the student considered relevant.

Only one student stated that the work experience did not assist his architectural studies. Due to his work commitments he was not able to give adequate time to his architectural studies and as a result experienced lower university grades in his final year. He had a responsible position in the architectural firm due to his time with the firm and therefore he gave preference to his work commitments and unfortunately he did not seek help. In undertaking work while studying students have to find a balance between the demands of work and university studies. Generally students resolve this time management issue early in their employment period. Nevertheless, students are informed that in order to complete their studies they must meet their university commitments and it is unusual for architectural firm not to allow for this situation. All the other 80 students reported that the work experience assisted their architectural studies. A typical student comment was: "My work experience has not only assisted me in my architectural education, but has complimented it and enabled me to achieve much more in my studies."

All students reported that the work experience expanded their knowledge of the profession and a typical student comment was: "I have never learnt so much so quickly about the architectural profession as I did in my first year of practice experience." There was universal agreement by the students that their communication and team building skills had improved as indicated by the statement: "I learnt valuable communication tools and skills that I was able to apply in my office environment as well as my everyday life."

Overall the students were very positive about the benefits that they obtained from their work experience. Parks, Onwuegbuzie and Cash (2001) obtained similar comments from cooperative education students. Some of the comments received from architectural students were: “What the university cannot teach, experience in the workplace can provide” and “While the theory was applicable, there is nothing quite like being immersed in the real thing.”

Although the students were not specifically requested to comment on the items below, the students in their general comments provided the following information:

- 14.5% reported being given leadership role for a section of a project or control of junior staff. These students were those who had been working for about 24 months.
- 18% reported being given responsibility for a part of a project. These students had been working for about 18 months.
- 26.5% reported being allowed to discuss project issues with clients. Based on discussions with employers these are students whom the firms trusted.
- 39.8% reported being allowed to undertake communications with external consultants regarding aspects of projects. This showed that the firms had confidence in those students.
- 12% reported that the work experience improved their confidence. Employers have reported that after a student has been working for a period they noticed that the student’s confidence progressively improves.
- 16.9% reported that time management was important. This was a lower percentage than expected based on past experience in discussing this issue with students.

A key element in the students’ comments was their statements about the work experience preparing them for employment on graduation: “I feel that without the practical experience, the university course alone would not prepare students for working in the profession” and “Working in an office affirmed that this industry was the right fit. No amount of study at uni could have prepared me for what this work was like I feel entirely prepared for the challenges for the real world that lie ahead.”

Conclusions

In the 2009 survey only a small number of students had worked the minimum period of 26 weeks. The majority had worked between one to three years. Past experience has shown that for approximately 6 months architectural students are purely assistants. After about 9 to 12 months the firm begins to trust the students and the level of supervision is reduced. As the students became familiar and competent with their work their employers progressively increased the level of responsibility. This normally takes about 18 months. As the majority of the 2009 students had worked between one and three years it follows that the students would provide comments about confidence, responsibility and in the case of more experienced students being given a leadership role. The relevance of the work experience for the students was important. All the students in the 2009 survey worked in architectural offices – their chosen discipline area. No student stated being bored with the work which can occur when a student is not working in their chosen profession (Evans, Kersh and Ashamoto, 2004). The work experience in architectural offices gave them the opportunity to apply on real projects the theory obtained at university and to see it come into reality as indicated by a student’s comment: “It is very rewarding experience to walk through a space one has designed and see the creation unfold like a beautiful piece of art.”

The work experience enabled the students to develop their discipline skills to a level that is acceptable to the industry. The best judges of the students’ performance in this area were the students’ employers. The combined ‘excellent’ plus ‘good’ assessments of the students by employers in 2009 ranged from 86.4% to 98.8% which is a very high level of satisfaction. This combined with the very

high assessment of the program by the students in the 2009 survey clearly showed that the program was effective and relevant for the students.

The message coming out of the architectural work experience program is that for any work experience program to be successful the following elements need to be considered:

- The students should be working in an area that students consider relevant to their future employment, preferably in their discipline or an allied area of activity;
- The period of work experience should be sufficient to enable the students to develop a level of confidence that will improve their future employment; and
- The work experience should give the students the opportunity to develop skills that complement their academic program and makes them immediately employable on graduation.

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Industry ready graduates for a global job market – a critical investigation of transnational education

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Are students prepared for the day to day challenges of the communications industry by the time they are completing their final year? This is at least the premise under which universities recruit students for industry focused degrees, such as the public relations degree at Curtin University. Arguably, this challenge becomes even more emphasised when investigated within the context of cross campus education. Transnational education is not new and has been the frequent subject of education research, however, based on universities' premise to deliver an identical curriculum across campuses, are we able to guarantee that graduates across locations will be equally prepared for their entry into the industry?

This research addresses students' pre- and frequent misconceptions as they embark on their studies, compared with their understanding of the discipline after having completed all core units of the public relations stream. It does so by comparing and contrasting results across five campuses in four countries. This paper concludes that the assumption that at the end of their degree students across locations will be equally prepared for a graduate position is inherently flawed. However, it also highlights frequently underestimated, or underutilised opportunities presented by transnational education.

Keywords: Transnational, cross campus, internationalisation, industry preparedness

Introduction

This paper provides a critical reflection on offshore teaching, with a focus on one particular program within the Marketing stream at Curtin University of Technology's Business School (CBS). Offshore programs promise to provide students across locations with an identical product, ultimately preparing them for a career in the industry of their choice (i.e. degree focus). However, the product is ultimately an Australian degree, modelled on Australian industry demands, professional accreditation, guidelines, characteristics and preferences. Consequently, academics and students alike may face a number of challenges. On one hand, local lecturers need to communicate Australia generated unit content in order to ensure students are able to meet standardised assessment criteria. However, on the other hand they are committed to preparing students for a career in their chosen field in their home country.

Curtin University of Technology has been involved in offshore education for more than two decades and is frequently referred to as a *pioneer* in the export of higher education, a business that has now developed into one of the key export streams supporting the Australian economy. Offshore programs offer students an Australian degree, modelled on the onshore *blueprint*, with identical teaching content and assessments. However, does an Australian degree prepare students sufficiently for graduate positions in Singapore, Malaysia or Mauritius? The author takes a critical look at one particular program, providing insight into how teaching content is communicated across international borders. A particular focus will be on Curtin Business School's (CBS) commitment to producing *job ready* graduates, who are able to meet current industry demands. Do students feel they have been sufficiently equipped with professional skills and knowledge that meet their local job market?

The business of transnational education in Australia

Selling education to foreign students is *big business* in Australia. The Australian Bureau of Statistics' 2008 *International Goods and Services* trade data confirmed education as Australia's third largest export industry, directly behind coal and iron ore (Australian Bureau of Statistics (ABS), 2008). In 2009 education exports earned Australia \$18.6 billion (Department of Education Employment and Workplace Relations, 2010), highlighting a continuous upwards trend with an increase of 8.1% on the previous year. This figure solely

represents international students attending institutions onshore, i.e. in Australia. However, in 2008 alone a further \$505 million were earned offshore (Department of Education Employment and Workplace Relations, 2009) representing around 65,299 students based in distance education and branch campuses of Australian institutions, predominantly throughout East and Southeast Asia. According to Marginson (2009) the only other country exporting education on this scale is the United Kingdom, which enrolls about half the share of international students.

International Education at Curtin University of Technology

Curtin University is considered a *pioneer* in international higher education. International students have been part of Curtin since as early as 1986, when government policy was amended to allow their enrolment on a full fee-paying basis. International students now correspond to 26% of Curtin's enrolments, representing around 6,000 students from 100 countries. International education is a major income stream for Curtin, generating around A\$50 million a year, thereby making Curtin the largest provider of international education in Western Australia and the third largest in the country (Liston, 2004).

Over the past decades the sector has experienced an expanding demand for study options outside Australia (Chapman & Pyvis, 2006), prompting increased investment in offshore education. The term *Offshore Education* describes a situation where international students are located in a different country to that of the institution providing the actual education service (Davis, Olsen, & Bohm, 2000). Students are offered the opportunity to study for an Australian degree, combined with the convenience of not having to leave their home country.

In addition to a wide range of collaborations, Curtin operates out of 16 locations, including three *offshore campuses*. The Sarawak Campus in Malaysia is Curtin's longest running offshore venture, which began teaching in 1999, and now has around 1,500 students. The latest expansion is Curtin's Singapore Campus, which was officially opened in late 2008, building on Curtin's over two decades long history of higher education in Singapore (Curtin University of Technology, 2009). There is also a campus in Sydney, which is operated by the international office and therefore is classified as an offshore location.

However, international education is essentially a business venture that comes with the same challenges – and opportunities – any other overseas venture does (McBurnie & Pollock, 2000). Communicating across geographical borders, adapting to different time zones, teaching in a language that is often the second, third or even fourth language of local students and recognising differences in professionalism and positioning of respective industries are just some of these challenges. Amongst staff, the business school's recent loss of the European Quality Improvement System (EQUIS) accreditation has frequently been attributed to the university's offshore involvement, and the inevitable differences in teaching quality and content delivery. As a result, the university's offshore activities have recently been extensively reviewed and streamlined.

Curtin's public relations course: preparing graduates for the "real world"

Higher Education institutions are under pressure to provide the industry with *job ready* graduates, which require minimum training and fully understand what is required of them in the so-called *real world*. Institutions who can demonstrate that their learning outcomes reflect the skills and attributes desired by the industry will in return be equipped with a powerful marketing advantage as their graduates are more likely to be employed (Rundle-Thiele, Bennett, & Dann, 2005).

The focus of this paper is on the Public Relations (PR) course taught at Curtin's Business School, located within the School of Marketing, and offered at five offshore campuses (Singapore, Perth and Sarawak, all owned by Curtin University, as well as Mauritius and Kuala Lumpur, where the program

is delivered by offshore partners). The PR degree is positioned as an industry focused, practical course, which prepares students for a smooth transition into an exciting, fast pace and ever-changing industry.

Across campuses, PR students are currently required to cover a minimum of six (Bachelor of Arts) or eight (Bachelor of Commerce) public relations units, ranging from technical writing skills and campaign planning to critical thinking and academic writing. All units are industry focused and draw on real life case studies, industry speakers and other work integrated learning (WIL) opportunities. Bachelor of Commerce students also need to complete a Law unit, which is essentially focused on and structured around the Australian legal environment.

The role of industry placements

According to Kerr (2005), public relations employers are particularly looking for graduates with real life and relevant work experience. In comparison to traditional professions, such as law and medicine, public relations is still in its infancy. Consequently, there is increased global pressure to ensure the professionalisation of the industry, which ultimately emphasises the need for stronger and more successful partnerships between academia and practitioners. Australian universities introduced dedicated PR majors as early as 1970, followed by a comprehensive accreditation process, introduced by the Public Relations Institute of Australia (PRIA) in 1991 (Public Relations Institute of Australia, 2008). In addition to an industry based *advisory committee*, a professional internship, practicum or work experience component used to be a core criterion for accreditation, but have now been downgraded to a “recommended” status.

In its 2002 report, the Department of Education, Science and Technology (DEST) identified eight core Graduate Skills: communication, teamwork, problem solving, initiative and enterprise, planning and organisation, self-management, learning and technology. However, research by Rundle-Thiele et al. (2005) into Australian-based marketing courses indicated that merely 3% covered all eight DEST skills in their curriculum. Curtin’s PR Major has recently undergone an extensive review and re-mapping exercise as part of Curtin’s Curriculum 2010 (C2010) process. Centred around Curtin’s recently re-defined nine Graduate Attributes (Curtin University of Technology, 2006), which are closely aligned with the DEST skills, curriculums are being streamlined, with a focus on *hands on* learning experiences and industry relevant learning outcomes. As final year, industry-based capstone unit, PR393 Professional Practice should at least theoretically embrace all nine Graduate Attributes. Students are provided with an opportunity to apply skills and theories acquired during earlier stages of their studies in a real life setting. This starts with the students’ responsibility to find their own placement, which gives them early exposure to job searching and effective self-presentation skills (Green, Quin, & Luca, 2005).

PR393 Professional Practice is run simultaneously across five campuses: Bentley (Perth, Western Australia), Mauritius, Singapore, Kuala Lumpur and Sarawak, both in Malaysia. Every year, over 200 final year PR students venture out to spend a minimum of 20 days full-time -or part-time equivalent- in a public relations, communication or (corporate) communications department, or consultancy. However, whilst students follow an identical unit outline, the quality of their placement experience varies greatly, depending on personal motivation and enthusiasm, the suitability of the placement organisation and arguably the placement location itself.

A professional industry placement provides students with an opportunity to gain a *glimpse of the real world*, whilst still benefiting from the relative safety and support provided by the university. It offers them an opportunity to apply their professional skills and knowledge in an authentic environment, as well as to re-adjust and adapt their expectations and industry perception before entering the graduate employment market. Consequently, internships provide academics and researchers with a limited, but

nevertheless valuable, insight into students' level of industry preparedness and potential skills gaps prior to graduation.

Challenges for transnational education

By running units and even identical courses across campuses we often fail to acknowledge that the understanding of disciplines, particularly relatively new subjects such as public relations, may differ between locations. Whilst offshore units are modelled on the onshore *blueprint*, the social standing, responsibilities and training of public relations professionals may vary drastically between countries. Consequently, the assumption that at the end of their degree students across locations will be equally prepared for a graduate position is inherently flawed – as is the assumption that students' placement experience (i.e. PR393 Professional Practice) will be of comparable quality.

For example, although Idid (2004) referred to Malaysia as having a “a mature public relations industry” (p. 232), he also recognised that the PR profession faces ongoing challenges in being confused with the entertainment and showbiz industry. Abdullah and Threadgold (2007) went even a step further, highlighting “low recognition of the profession, a shortage of qualified practitioners, a lack of regulation, and a lack of credibility among practitioners” (p. 1). A similar assumption can be made about the PR industry in Mauritius, which has only recently launched the Public Relations and Communication Professionals Association (PRCPA) in November 2008.

Whilst Bentley based students complete their placements in a wide range of locations, such as some of the country's best know not for profit organisations (e.g. the Cancer Council, Telethon Institute, Alzheimer's WA, Oxfam, Make a Wish Foundation, Salvation Army), boutique (Impact Communications, Hopscotch Communications) and international consultancies (Porter Novelli, PPR), corporate organisations (BHP, Rio Tinto, Burswood Entertainment Complex) and government departments (Education and Training, Water, Communities, Tourism), the choice for particularly offshore students based outside their country's capital city can be rather limited, relying heavily on the local tourism and events industry. Consequently, placements frequently include a large proportion of non-PR related responsibilities. Students may spend a considerable amount of their internship period completing clerical or administrative tasks, such as filing, photocopying, typing or media monitoring (newspaper clipping). These are all valuable experiences and provide students with an opportunity to observe what is going on around them, however, they provide only a limited insight into the *world of public relations*. Furthermore, due to the lack of visibility of the PR profession in some locations, students may be given *pseudo PR jobs* in customer service, front-desk, reception, advertising and marketing promotions positions. This misconception of the public relations industry puts not only pressure on students to continuously explain key responsibilities of PR professionals, it also limits their ability to reflect on their studies and write a comprehensive, insightful and professional placement report.

Furthermore, guidelines for the length of the professional placements were originally introduced in response to the PRIA accreditation requirements. Unit outlines and teaching staff have encouraged students to extend their placement beyond the twenty day minimum requirement, however, with only limited success. This represents another challenge to finding a suitable placement, as employers throughout the Southeast Asia region prefer to offer internships to students who can commit for a longer period of time, usually around three months. The same limitation applies to students who prefer to complete their placement in a part time mode throughout their semester of enrolment. Particularly, Malaysian and Singaporean employers appear to be less prepared to offer part time opportunities than their Australian counterparts.

Finally, for most students enrolled at Curtin's offshore campuses English is the second – possibly even the third or fourth language. Consequently, the quality of written English has attracted criticism when marking and moderating reports. Despite appreciation of their language skills, students need to

spend more time on proofreading and editing – both in a professional and a university context. This presents a challenge for offshore students.

Students' perception of industry preparedness

The authors' key focus for this research project was to take a critical look at students' industry preparedness, within the context of a cross campus run placement unit.

A number of studies (Bowen, 2003; Xavier, Mehta, & Larkin, 2006) have confirmed what most academics have been long aware of: a large number of students enrol in a public relations degree with only a limited understanding of what the industry actually entails, including a strong focus on promotion and event management. These misconceptions, or limited understanding, are not unique to the public relations industry. However, they are representing a serious challenge for academics and the industry as the discipline is maturing and actively working towards a move away from the distorted, glamour-focused representation and negative connotation in the mainstream media.

However, these studies were conducted early to mid way through the public relations /communications degree. To date there is a lack of research into how these expectations and understanding of the industry may have changed by the time students are preparing for graduation, and the role industry placements may play in this development. This study sets out to address this gap, with a particular focus on potential differences between Australian based *onshore*, and overseas based *offshore* public relations students.

Research Methodology

In order to answer the research questions, a survey design was implemented to capture students' perception of the industry. An online questionnaire was designed which asked a number of quantitative and qualitative questions about students' insight into the industry and how their perception had changed since enrolling in the course. Data were collected from final year public relations students as they had just completed their compulsory industry placement and in the majority of cases were preparing for graduation.

The sample for this study consisted of 180 students, due to a relatively small cohort in semester 1 2009. Sixty-nine valid responses were gathered across the Perth, Singapore, Sarawak, Kuala Lumpur and Mauritius campuses, representing a 38.3% response rate. Participation was anonymous and voluntary as per the university's ethics standards for research on current students.

A number of limitations impact the findings of this study. Firstly, the study is limited to students enrolled in the PR393 Professional Placement unit during one particular semester. Furthermore, the study was conducted at only one university in Australia, which means findings will not be representative of other universities or public relations courses. Finally, participation rates, particularly at offshore campuses, were disappointingly low. However, this study builds on previous research into graduate perceptions (Bowen, 2003; Xavier, Larkin, & Mehta, 2006; Xavier, Mehta et al., 2006) and consequently may provide some useful insights for other institutions or related fields of study.

Results and discussion

Valid responses were equally split between Bachelor of Commerce and Bachelor of Arts (Mass Communication) students, with the vast majority of Mass Communication students (72%) being based at one of Curtin's offshore campuses. Students from five campuses (Perth, Mauritius, Singapore, Kuala Lumpur and Sarawak) participated in the study. Despite the international focus of this study,

57.4% of responses came from onshore, i.e. Perth based, students. 73.8% of respondents were in the third year of their degree. The remaining 26.2% were either part-time or double-degree students in their fourth year and one respondent was in his or her fifth year of study. Due to the limited sample and low response rates from some offshore campuses the prime focus will be on qualitative responses, rather than statistical differences between different locations.

Improved understanding of the PR industry

Students overwhelmingly (96.2%) agreed that the placement unit had improved their understanding of the public relations industry. Many commented on the benefits of being able to implement theory in a real life setting:

Before I just knew about the theory now I can see how it works, explained one student.

This is an interesting statement in itself, considering that all public relations units in this degree are highly practice orientated, including extensive involvement of *real life* clients throughout the curriculum. However, comments suggest that students nevertheless fail to make the connection between university and theory on one hand, and industry and practice on the other until they find themselves in a work like situation.

According to respondents the placement also fulfilled another very important function by preparing students for the job application process and taking away the fear of having to leave the perceived *safety* of the university environment. 90.5% agreed that the placement had provided them with a better understanding of what would be expected of them as a graduate and entry level job seeker:

I was unsure of where I was heading. Now, I am more confident, I've worked in the field, I can handle it, explained one respondent.

Reassuringly, a number of students had detected gaps in their knowledge or weaknesses in their writing, which they were now keen to improve on before they entered the industry on a full time basis. Many of these students may have previously described lecturer feedback as “too harsh”, but had now been able to benefit from real life benchmarking.

However, respondents did not ultimately agree with the next statement, that the placement had *changed* their perception of the PR industry (45.3% - neither agree nor disagree). Particularly Perth-based students stated that they already possess a very good understanding of what the PR industry would be like after three or more years of study. As one respondent explained:

I always knew that the PR industry is fast paced and dynamic, so [the placement] didn't really change that perception, it just solidified it.

However, offshore students were more inclined to agree that the placement had changed their perception (82%), which poses an interesting challenge: Either students felt inclined to provide the answer they felt was expected of them, or offshore units, despite being modelled on the onshore program, might not provide the same level of industry insight and relevance.

Some respondents were surprised about the less central role the media release played in day to day industry practice: “Through the internship I've learnt theres [sic] more to pr than mere writing.” A number of students also commented on the fact that they got a better understanding of how public relations fits within a larger marketing or communications department, or even the organisation as a whole, being responsible for far more than simply media relations. There were also a number of rather

frustrated respondents who were disappointed with the lack of creativity and previously unaware of the less glamorous side of public relations, involving monotonous task, research and background preparations. These type of comments were identical across all locations, but arguably slightly more common amongst onshore students.

As part of the unit students were required to reflect on their experience in a group blog, shared between students from all five campuses. A number of respondents commented that it was particularly this exchange of insights that broadened their understanding of the PR industry, its many facets and differences between campus locations:

By reading through the reflective blog, [...], I could see the PR industry is huge.

Changing perceptions

Students were asked to think back to their first year at university and to recall what had initially motivated them to enrol in a PR Major. Most students were relatively sincere:

To be honest I really didn't have a clear idea of what Public Relations was.

As expected, many students referred to the glamorous perception of public relations as being “all about wining and dining, parties, celebrities, events etc”. “Socialising”, “events management” and “being good with people” were mentioned frequently. Particularly amongst offshore students there appeared to be an initial confusion between PR and the role as a “professional host” or hotel receptionist. A number of respondents also stated that they were enticed by the promise to manage an organisation’s reputation and crises.

Three years later respondents reported that they had come to realise “how diverse this field is”. Despite some disappointment due to the less glamorous day to day practice, many students were positively surprised about how much they enjoyed the background planning and unexpected wide scope of the industry, stating areas like sponsorship, internal and community relations. Despite an improved understanding of ethical practice and PR *specialism*, many had underestimated the strong focus on writing skills, particularly in entry level positions. As one student explained:

Most positions are much more technician based than strategy based, this is disappointing. I know the importance of the technician aspect of PR, but at times feel it is more like secretarial work which may not really require a university degree.

Again, onshore students appeared to be more outspoken in their criticism. Overall, these comments support Bowen’s (2003) findings that students (mis)conceptions of the public relations industry may change over the course of their studies. The placement unit appears to play a very powerful role in this.

“For English as a second language students, work on the English language is crucial”

Finally, students were asked what advice they would provide to a first year public relations student. Alongside encouragement for their peers to research public relations thoroughly before embarking on a degree with the perception that this would be “an easy or *fluffy* option”, two very clear themes emerged: First of all, students emphasised the need to be up to date with current affairs and different news channels – traditional or new. Secondly, a large number of respondents emphasised the need for

more placements and industry involvement, rather than delaying industry experience until the final semester:

Do as much work experience as you can get, and don't be afraid to put yourself out there.

Another student emphasised:

Do prac ALL THE WAY THROUGH not just the last year- it really gives you that extra edge.

Networking and industry involvement also featured strongly, as well as the need to be proactive and ongoing skills development, particularly in writing. Offshore students emphasised the *fun* elements of the degree as much as the importance for English as a second language students to work on their communication skills.

Overall, respondents reported to have obtained a greater recognition of multitasking, time management, continuous professional development, the need for adaptability and the fast pace the industry is operating in. From a teaching perspective it is reassuring to see that the placement had not essentially changed students' understanding of the industry during this late stage of their studies, but had rather clarified and solidified previous knowledge.

Conclusion

In this paper the author set out to take a critical look at cross campus education in the context of a final year public relations unit. The study confirms that across campuses students continue to enter their public relations degree with a distorted perception, focused on glamorous elements, hosting of parties or an interest in top level crisis management. These need to be addressed by both academics and the wider PR community.

Compulsory placement units are not a *safe* option. The commitment to sending all students into the industry for a period of time requires confidence in the quality of the course and teaching staff. Industry placements in offshore locations provide additional challenges, such as a different or limited understanding of the public relations industry, a lack of visibility of the degree and Curtin PR graduates themselves and a consequent, continuous struggle to locate suitable placements. However, on the other hand the benefits of professional internships appear to play an even increased importance amongst offshore students, who perceive their university based training as largely theoretical. Placements play a crucial role in providing students with realistic expectations prior to entering the industry. Whilst increased pressure may be placed on offshore students, who are entering a relatively *new profession*, they are effectively acting as Curtin ambassadors and *change agents* in their respective countries, actively shaping the development and professionalism of the PR industry. Students across campuses reportedly benefited from the practical elements of this final year unit, but earlier classroom-based units appear to have provided them with a realistic foundation and understanding of the industry. Offshore respondents in this study appeared to be less critical in their responses to the survey questions. However, the author noted a difference particularly between Curtin's well established Sarawak campus, and some of the newer locations run by industry partners. Due to the low number of responses, further research is required to confirm this.

Are students in Malaysia, Singapore and Mauritius as prepared as Perth based students when they enter the local PR industry? Most likely not! This paper merely provides a brief snapshot of graduates' perception of their level of preparedness for the PR industry, based on a brief study and extensive critical reflection by the onshore unit coordinator. However, it raises a number of important questions in relation to the Perth-centricity of unit content and its consequent suitability in order to sufficiently prepare offshore students for a career in their chosen field. Whilst ethical practice,

professionalism and a broad understanding of relatively new disciplines such as public relations, are crucial, a wider range of cross campus generated case studies and other teaching resources could be integrated. Unit coordinators may have traditionally largely focused on the challenges and disadvantages created by offshore programs, whilst underestimating the potential of transnational education, in designing a truly internationalised curriculum.

As the third largest provider of international education in Australia, Curtin's Business School programs have to date largely failed to embrace the opportunities offered, particularly by its offshore campuses and local expertise. Whilst industry standards and professional standing may vary across locations, cross campus engagement via tools like the Reflective Blog in the PR393 Professional Practice unit do not only provide offshore students with a meaningful way to interact and engage with their onshore counterparts, they offer students across *all* location the opportunity to gain a truly international, multi-cultural understanding of their chosen discipline.

Cross campus education is often perceived as a challenge, for both academics and students. However, it also provides a range of to date largely untapped opportunities, with the potential to prepare *all* Curtin graduates for a career in an increasingly interconnected, global job market.

Further, longitudinal research should be conducted, effectively tracking students' perception on entry, graduation and after their first years in the industry. Insights gained would be valuable for the industry, academics and particularly for PRIA, in gauging how the PR industry is maturing.

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What's in it for me? – an investigation of the “WIIFM-Effect” for industry partners in client centred learning

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Whilst the use of real life clients is becoming increasingly popular, particularly within the business school context, the focus has traditionally been on how industry representatives can enrich students' learning experiences. However, by doing so we have essentially ignored one of the key stakeholders in the education process: Whilst industry collaboration in the course design is a promise frequently made to attract students, demonstrating the real world validity of the program and thereby essentially gaining a marketing advantage for the course itself (Rundle-Thiele, Bennett, & Dann, 2005), the benefits and shortfalls for industry partners involved in these type of arrangements have been largely ignored.

This paper argues that it is time to pay more attention to the 'client' perspective in industry integrated learning opportunities. Based on three years of client based teaching, the author has identified six distinctive client types, which characterise different approaches to and perceptions of client centred learning. The author concludes that client centred learning is not a “safe” alternative to teacher-centred activities. However, it can be very rewarding, as long as the client's motivation is thoroughly considered at the outset of the project.

Keywords: clients, client-centred learning, real life cases, public relations

Introduction

Over the past decade the focus in higher education has shifted from teacher to student-centred education (Kennedy, Lawton, & Walker, 2001), with an increased emphasis on learners being actively engaged and valued as participants in the education process (Burns, 2002). Within the public relations and wider marketing education context there has been a move towards the inclusion of *real life clients* and case studies in the curriculum, aiming to provide students with an opportunity to gain meaningful real life experience whilst studying. However, despite a growing body of knowledge and continuous interest in client centred learning, much of the attention given to the university-client relationship has been on the benefits for students, and increased workload for academic staff, whilst the client perspective has been largely ignored.

The importance of Work Integrated Learning (WIL)

Over the past years Work Integrated Learning may have developed into a buzzword in education circles, however, the concept itself it is not new. The potentials and benefits of Work Integrated Learning (WIL) have been recognised since the early 20th century, predominantly in Northern America and Europe (Jancauskas et al., 1999; Reeders, 2000). However, as Australian universities find themselves under growing pressure to produce job ready graduates, WIL is now being recognised as integral part of the curriculum (Green, Quin, & Luca, 2005).

Employability upon graduation is now a critical factor in students' choice of university (Green et al., 2005). However, whilst students might enter higher education with one specific career direction in mind, research indicates that Generation Y workers will change their jobs between 8-12 times during their working life, including 3-4 complete career changes (Khare, 2007). Additionally, the fast changing nature of jobs and ever faster improving technologies mean that many of today's students will work in jobs that do not yet exist (Jukes & McCain, 2001). Consequently, discipline knowledge alone is no longer a guarantee for relevant employment, as it dates quickly upon graduation. In these dynamic environments employability depends on versatile workplace skills and the ability to adapt. As a result, universities have been facing increased demand by the industry, parents, students, governments and regulatory bodies to produce students with generic, versatile workplace skills, in

addition to the more traditional discipline specific skillset (Bates, 2004; Green et al., 2005; Kerr, 2005).

Work integrated learning is popular with students and strongly supported by industry and governments (Reeders, 2000). Consequently, authors like Rundle-Thiele, Bennett, & Dann (2005) argue for a change of focus in pedagogy; away from demonstration of knowledge, to acquisition of (lifelong) skills. Locally, this idea has been reinforced by the introduction of Curtin University's *triple i* curriculum, which in 2008 resulted in an extensive, university wide review of all course offerings under the label 'C2010'. Alongside a focus on international and interdisciplinary learning, *triple i* particularly emphasises "industry closeness" and "graduate employability", which are to be achieved via the embedding of "work integrated and career developing learning, scenario-based problem-solving, and critical reflection on real or simulated work/based experiences" (Curtin University of Technology). Universities have come to realise that close industry relationships, the promise of real word validity of the course design and consequent employability of graduates represent a powerful marketing tool in their efforts to attract parents' attention and ultimately to recruit students (Kerr & Proud, 2005).

Amongst others, WIL includes guest lectures, industry speakers, field trips, real life case studies, as well as practica or placements, which all provide opportunities for tertiary institutions to produce well-rounded graduates, who possess knowledge of workplace culture and values, alongside the traditional technical competencies (Coll, Taylor, & Nathan, 2003; Jancauskas et al., 1999). All these are integrated to various levels in the Curtin Public Relations curriculum, however, the focus of this paper is on client-based or client-centred learning experiences, as part of a third year consulting unit. The aim behind the integration of a 'live' client is to provide students with an opportunity to apply their skills in a real life setting, gain relevant experience for their curriculum vitae, build their portfolio and demonstrate to the industry the applicability and relevance of higher education training.

A brief introduction to Client Centred Learning

In today's fast changing business landscape employers are seeking graduates who can demonstrate creativity, critical thinking, technical expertise and an ability to adapt to change (Ackerman, Gross, & Perner, 2003; Kerr & Proud, 2005). As a result, educators are under pressure to prepare undergraduate students to become "productive employees who can communicate effectively, work well in teams and solve problems, as well as demonstrate competent knowledge" (Parsons & Lepkowska-White, 2009, p. 154). Group projects are particularly recognised as a tool that can be used to develop these key skills, in particular client based projects. Parsons & Lepkowska-White (2009) emphasise that the level of involvement may vary depending on the individual client and the project set up. However, essentially client-based learning enables students to gain real life experience by working with clients on existing problems and presenting them with potential business solutions (Goodell & Kraft, 1991). These clients might be large or small for profit organisations, not for profits or government departments.

Benefits

Within a marketing and communications context, life cases in teaching have been relatively well researched. Scholars agree that students tend to find them rewarding (Parsons & Lepkowska-White, 2009) and are motivated to work hard (Goodell & Kraft, 1991). Despite recognising that they can be very time consuming (Bove & Davies, 2009), client centred learning is recognised for helping in the development of communication, critical thinking and problem solving skills (Wojahn, Dyke, Riley, Hensel, & Brown, 2001), i.e. those skills students will need in order to succeed in their post university career (Barr & McNeilly, 2002; Bove & Davies, 2009; Cooke & Williams, 2004; Kennedy et al., 2001). The common ambiguity of real life cases develops students as self directed learners and

problem solvers and adds a level of “realism” (Razzouk, Seitz, & Rizkallah, 2003). In the words of Razzouk (2003, p40):

Real life projects bring realism to marketing education.

Additionally, client based learning enables higher education institutions to demonstrate their commitment to “give something back” – or engage with – the community (Cooke & Williams, 2004; Goodell & Kraft, 1991; Razzouk et al., 2003). In the case of Curtin University, this close community relationship is part of the institution’s overall corporate positioning⁵². For individual academics real life cases provide an opportunity to remain in touch with industry leaders and up to date on business trends and practices (Parsons & Lepkowska-White, 2009). Furthermore, the project based working relationship in itself provides an opportunity to create long-lasting, mutually beneficial relationships (Cooke & Williams, 2004).

References to client benefits in scholarly publications is characterised by a lack of first hand empirical insight. Benefits such as cost savings and the recruitment of potential employees (Cooke & Williams, 2004), are largely based on assumptions.

Disadvantages

Despite the strong endorsement by scholars, client-centred learning does not come without its disadvantages. The arrangement and coordination of the real life project can become very time consuming (Lopez & Lee, 2005; Parsons & Lepkowska-White, 2009), requiring extensive preparation, screening for appropriateness and reliability. They essentially demand a high level of energy by the lecturer (Bowen, 2003). Students may assume a client-centred project may take the pressure off academic staff in terms of unit design and assignment content, however, scholars have highlighted that these kinds of arrangements require more effort and instructor involvement than other forms of classroom assignments (Kennedy et al., 2001; Razzouk et al., 2003). Finding an appropriate project in the first place can be a challenge (Goodell & Kraft, 1991; Razzouk et al., 2003). Clients should be selected carefully (Lopez & Lee, 2005; Orrell, 2004), as the success of the project is highly dependent on the ongoing commitment by the client (Bowen, 2003). Students may also get irritated when the client is perceived to be not responsive enough or fails to provide sufficient insight into the challenge at hand (Kennedy et al., 2001). Parson and Lepkowska-White (2009) conclude that despite recognising its benefits, students essentially consider the client based project experience as more time consuming and ‘frustrating’ than theoretical projects.

Gap in the current literature: forgetting the client in client-centred learning?

Scholarly research into client centred learning has primarily focused on the promotion of benefits, rather than a critical analysis of challenges and inclusion of different stakeholder perspectives. The focus has been predominantly on the student experience (e.g. Goodell & Kraft, 1991; Wojahn et al., 2001), with some consideration of academic workload (e.g. Parsons & Lepkowska-White, 2009). Potential employers are crucial stakeholders in the educational process. Their collaboration in the course design is a promise frequently made to attract students, demonstrating the real-world validity of the program. In addition, this collaboration is often essential to meet accreditation requirements, such as the one set by the Public Relations Institute of Australia, which strongly emphasises work integrated learning opportunities and industry closeness (Public Relations Institute of Australia, 2009). However, to date the perspective of the *client* in client-centred learning has been largely ignored.

52 “Curtin University of Technology aspires to be a leading university in education and research serving the wider region. Therefore, community engagement is a primary focus for us.” (www.curtin.edu.au/community)

The WIIFM effect

Individuals live their lives and make choices by considering “what’s in it for me’ (WIIFM)? The WIIFM effect has been referred to in a wide range of scholarly contexts, from empowerment in the workplace (e.g. Nicholls, 1995) and change management (e.g. Sullivan, Sullivan, & Buffton, 2001), to counselling (e.g. Campbell & Brigman, 2005) and most importantly student learning (e.g. Brigman & Campbell, 2003; Jun, 2005). The WIIFM effect is also particularly prominent throughout the PR curriculum, where it is used to explain the importance of recognising different stakeholders’ motivations and interests. For example, when second year media relations students are considering angles for media releases they are encouraged to keep in mind that the receiving journalist will most likely ask him- or herself: What is it in this story that is of interest to me? And most importantly: why is it going to be relevant to my readers? Public relations theory is based on the notion of two way symmetrical, beneficial relationships (Grunig & Dozier, 1992). No matter if as part of a comprehensive community engagement exercise, whilst addressing shareholders at an AGM or the designing a company newsletter, the WIIFM factor will play a crucial role for communicators in ensuring their message is relevant and understood.

Real life clients, like any business representative, have to meet a number of conflicting demands on their time. Consequently, the WIIFM effect will no doubt influence the level of interest and active participation in any client centred learning activity, allowing to weigh up benefits of student engagement against other demands and interests. A perceived low level of personal benefits may lead to either to a lack of interest throughout the project or the decision to not participate at all. Educators have to recognise that client always have an agenda and a personal interest at heart.

PR300 Consultancy

According to Kerr and Proud (2005), public relations employers are particularly looking for graduates with relevant work experience. Graduate employment and industry closeness is a particular focus of Curtin University’s Business School, particularly since the introduction of the university’s *triple i* curriculum, which requires curriculum and assessment of all courses to be designed in a way which provides students with the opportunity for work integrated learning and career development.

As early as in 1976 Mintzberg encouraged educators to make greater use of experiential and creative skill-development techniques, thereby allowing students to not only practice their interpersonal, but also informational and decisional management skills. Mintzberg called for a balance between analytical and intuitive skills, recognising the value of both right and left brain thinking and thereby ultimately improving students’ career opportunities. PR 300 Consultancy does exactly that. Students in Parsons and Lepkowska-White’s (2009) study may have described the client-centred learning experience as work intensive and frustrating, however, it will be this level of ambiguity that will prepare them for their post university careers, as Mintzberg explains:

effective managers seem to revel in ambiguity; in complex, mysterious systems with relatively little order (p. 53).

Consequently PR 300 Consultancy is moving away from the safety provided in earlier units and requires students to work as independent teams on a real life scenario. In order to enrich student learning and understanding of professional public relations practice, the final year Public Relations Consultancy unit has been designed around a ‘real life client’. As early as in week two students are briefed *live* by their real life client on a current communications challenge, which essentially provides the focus for the rest of the semester. The unit places a strong emphasis on market intelligence and industry research and requires students to first pitch their recommendations and creative ideas in a classroom environment before submitting a comprehensive communications strategy report. Particularly attractive is the invitation for top performers (usually the three best performing teams) to

present their ideas and recommendations directly to the client in an authentic boardroom pitch at the end of the semester.

The Challenge

Seeing the glow in students' eyes I could have easily been led to believe that having an attractive, well known client, - a local AFL team – would result in a rewarding learning experience. How couldn't it? My students were motivated, passionate in their support for either this team or their local rival, and extremely proud to have been given the opportunity "to finally work with a for profit client". However, what looked like a rewarding semester at the outset, turned into a major disappointment for all parties. Three months later the relationship had dramatically cooled: the involvement of athletes in the live briefings never eventuated. A last minute change in staff availability resulted in a 90 minute promotional talk rather than a student briefing and the final pitch suggestions were received rather lukewarm by two of the organisation's most junior members of staff (involvement by the CEO was another promise that never eventuated). Where had we gone wrong? The key contact was one of our recent graduates, a student that may have not stood out during her time at university, but someone who had done extremely well over the past 18 months in her new position. She was invited as a client, as part of a wider partnership between the club and the university's business school. Consequently, the initial arrangements were not handled by the unit coordinator directly. On reflection, the staff member had been too junior, without direct access to top management and most importantly: without any real passion for the project, nor the unit. Essentially, from her perspective, she was doing the university a favour.

The dramatic failure of what set out to be one of the School's major highlights prompted an extensive review, refocus and analysis of the unit's client relationships. Was it the 'for profit' element that made this relationship fail? Or should we be staying clear of sporting teams? Interestingly, the next semester saw a complete reversal: the unit welcomed another State-based league club as client and again, the major contact was a recent graduate. Despite initial reservations based on the recent disappointment, this project turned into one of the most rewarding ones for students, staff and the client the unit has seen to date.

These experiences in early 2008 prompted the unit coordinator to take a more strategic approach to the selection of clients and the analysis of the client-university relationship, with the underlying aim to understand common themes and indicators that aid in the creation of mutually beneficial learning experiences.

Methodology

This paper is based on a critical reflection on and analysis of ten semester long, client based projects as part of a third year PR Consultancy unit. Over the course of the past three years the unit coordinator maintained detailed, reflective notes on individual client arrangements and their outcomes. Informal feedback, email communication and semi structured interviews with *clients* provided further first hand insights into the client perspective, whilst informal and formal end of semester student feedback was taken into account when determining the success of individual arrangements.

In contrast to existing literature, the focus of this project is primarily on the industry representative as the 'real life client'. Clients included an Australian hotel chain, two state based sports clubs including an AFL team, three state wide charities (disability services, domestic violence, children's health), a local activist group, a foster care agency, a communications consultancy and a State based arts fund.

The coding of data in NVivo allowed the researcher to identify a number of common themes, resulting in the development of six distinctive client roles. A client may enact a number of these roles to varying degrees, however, they do provide an insight into which types of client-university relationships have the potential to be successful.

Findings and discussion

Why do some client projects look highly promising at the outset but end up turning into a disaster? And why do others, that do not look very exciting to start off with, develop into a success for all parties involved? This was the key research question for the author, aiming to improve the success rate for future client based projects with the aid of guidelines and indicators.

An initial review found non profit based projects to be more rewarding. However, the failure to look at individual clients' motivations and interests might lead to over simplification and misinterpretation. Due to the restrictions of this paper the author will not be able to provide detailed insights into the data analysis process, however, based on the identification of common themes six distinctive client types emerged:

The Social Justice Advocate (SJA)

Social Justice Advocates are extremely passionate about their cause, which may range from domestic violence and childcare arrangements to preservation of natural resources. Their cause is part of their own identity and has consequently blurred the lines between private life and work. These clients' main aim is to share their passion with students, who they often identify as a key target audience. Primarily, they want to encourage student to engage with the topic at hand and gain a more rounded insight into the issue. However, a secondary advantage is that SJA clients tend to lack internal resources and marketing/public relations expertise, which is something students can help them with. The key challenge is that students often struggle to comprehend the internal limitations, which essentially will impact on the scope and feasibility of their recommendations. Social Justice Advocates are passionate about their cause, which means briefing sessions can be rather lengthy and may go off track, requiring intervention by academic staff.

The Lifelong Learner (LL)

The Lifelong Learner is passionate about education, not only in a PR or marketing context, but more likely in an area related to their business. In the context of this unit examples have included tourism, foster care and generic management skills. Lifelong Learners see client based projects as an opportunity to share their passion for learning in general, communicating the power of knowledge. Whilst they may not have any expertise in the area of PR or marketing, they tend to be highly prepared, keen to become directly involved and committed to providing extensive feedback. One of the challenges when dealing with Lifelong Learners is their frequently high expectations, which may not always match students' attitude towards the project.

The Indebted Graduate (IG)

Having truly enjoyed their time at university, the Indebted Graduate has a particular connection with the course, the unit or in particular client centred learning. Indebted Graduates are not always those that were particularly academically strong. Rather, they have experienced work integrated learning which in turn has ignited their passion for the public relations industry. Now they are keen to share this enthusiasm and their passion for their current position. Indebted Graduates might be relatively junior, however, if they work in a relevant area and have support from management, they can help to create a highly effective learning experience. One advantage is that they understand the unit and the frequently naïve attitude of students towards strategic business recommendations. They have

graduated recently enough to understand the student perspective, but are equally keen to share the new insights gained in their role as client. Students love hearing from graduates, and unit coordinators have the advantage that they can communicate with the client directly.

The Self Promoter (It's all about me!) (SP)

All clients have an agenda. Whilst this is true, the Self Promoter's agenda is ALL about themselves. They might be keen to position their business as committed to lifelong learning or 'giving back' to the community. However, at the end of the day their key focus is on a promotional piece on their company website, preferably including the university logo, and an article in their newsletter, showing them *live* in the act of engaging with students. Whilst Self Promoters can be very passionate, the enthusiasm for the project itself tends to subside very quickly. Initially they tend to 'drive' the university-consultancy relationship and promote the benefits of the arrangement, however, they might also make many promises that never eventuate. Unless unit coordinators have direct, personal access to the client, relationships like this can severely undermine the learning experience.

The 'No Budget' client (NB)

Whilst a limited budget and lack of in house PR and marketing resources might be a motivating factor for a wide range of clients to become involved, the "No Budget" client's primary focus is on "free labour". These clients are not very interested in the students' learning experience itself. Interestingly enough, they are not even highly engaged in the initial briefing part at the start of the semester, nor the end of semester presentations. Essentially, the "No Budget" client is interested in a well researched, comprehensive document with relevant PR strategies and tactics that will help advance their organisation.

The 'Doing a Favour' client (DF)

"Doing a Favour" clients mean well, which makes this relationship very difficult. For one reason or another they might feel obliged to say 'yes' to the request to come on board as a real life client. However, the problem is that their decision was not thoroughly thought through, or they failed to be honest with themselves (and the university) when they made their initial commitment. Essentially, the DF's heart is not in the client-centred project due to other commitments, a lack of personal interest or in many cases because the key contact in the client organisation has "no runs on the board". This client might be relatively junior and is still struggling to find their feet in the industry. Additionally, they may lack the support by senior management. Essentially, they are too preoccupied with their own career – at whatever level this may be – to become fully engaged with a student learning project. "Doing a Favour" clients have the tendency to disappear, be non contactable or unresponsive for longer periods at a time, which can drastically increase the academic coordinator's stress levels.

So, why did the AFL-club focused project fail? The key contact in this case was a "Doing a Favour", client, with limited personal interest in the arrangement. Arranging a partnership package with the business school was an attractive opportunity, however, at the end of the day the graduate was still finding her own feet. Most importantly, the graduate was based in a sponsorship role and had limited access to the Communications Director and other key decision makers. In contrast to this, the second sports club based example was a full success due to the involvement of an Indebted Graduate, whose key focus was on sharing the passion for her new position. Equally, this was an opportunity to share an insight into her degree with the rest of the communications team. Most importantly, the key client contact had full support from the management team, who experienced the progress she had made over the past 18 months and consequently had very realistic expectations of what to expect from a student project. Access to "free intelligence" was undoubtedly an additional benefit, as the club was aiming to communicate more directly with the students' age group.

These six roles have not been developed as distinctive client profiles. They have been based on observations, feedback and first hand insight from real life clients, collected over a period of three years. The author acknowledges that clients may enact a number of different roles at any given time. Whilst some elements of the Self Promoter or the No Budget Client may be present in most relationships, a pure focus on “free work” by a client can have dramatic consequences. Equally, the Social Justice Advocate and Lifelong Learner might over-emphasise their own agenda, forgetting that final year public relations students tend to be in their early 20s and lack the life experience and expertise the client is expecting. Another danger is that the client is too focused on their own challenge at hand to fully understand the communications focus of the unit. Like in all client centred learning experiences, the unit coordinator needs to carefully balance the client’s interests with the unit’s learning objectives.

Conclusion

Despite an increased interest in client centred projects in teaching and learning literature, the perspective of one of the key stakeholders in the learning experience – the client – has been largely ignored in scholarly research to date. Like any other stakeholder, clients ALWAYS have an agenda – however, this does not necessarily have to be a disadvantage, as long as all parties are aware of the potential implications.

This paper set out to provide insight into different client profiles, based on years of client centered learning experience, with the aim to provide academic coordinators with guidelines that help with the selection process of appropriate clients for experiential learning experiences. The author identified six distinctive client roles, however, recognises that a client may enact a number of roles simultaneously and to varying degrees, at any given time.

Client based projects can be a very rewarding experience for students, academic staff and clients. However, they are definitely not safe alternatives to teacher centred learning activities (Wolf, 2008). Essentially, clients will ask themselves: “What’s in it for me?”, when they are invited to participate in university projects. Academics cannot afford to ignore the WIIFM effect’s impact on the client centred learning experience. Unless the client’s and university’s objectives, business interest and learning aims match closely, the project runs the risk of being hijacked to meet one of the client’s various agendas.

Limitations

Insights gained in this study were based on one particular unit at one university in Australia. Data was limited to insights gained from ten client relationships over the course of three years. Although findings may be particularly relevant within a public relations and marketing context, they may provide the basis for further research in and exchange of insight with other disciplines.

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Professionally relevant learning: preparing students for the recruitment process

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At Victoria University (VU) in Melbourne the university's 'Making VU' agenda includes a firm and practical commitment to promoting and enabling Learning in the Workplace and Community (LiWC). VU's broad definition of LiWC means that 25% of learning activities in a course involve learning in and through the workplace and community. VU's LiWC models and approaches include projects in a workplace, clinical placements, enterprise initiatives and simulated learning environments. An important feature of LiWC at VU is that it is characterized by an engagement with industry. A further important principle of LiWC at VU is that the activity is beneficial for all parties: learner, university and partner organisation.

Many Australian universities are investigating how to nurture collaboration between universities and 'the workplace' and the idea of industry and community engagement looms large in many universities' missions, policies and aims. This paper seeks to both document the various ways that industry engagement manifests itself in business curriculum and evaluate the worth of that engagement from student and industry perspectives.

This research examines the popular idea of 'engagement' and draws on work undertaken in a current ALTC project, *Engaging Industry: Embedding Professionally Relevant Learning in the Business Curriculum* to discuss industry engagement. We focus on one learning activity in a third year unit at VU, *Professional Development 3: Leadership and Challenge (PD3)*, in a case study approach to highlight the various stages and depths of industry engagement in the development, delivery and evaluation of the whole PD3 unit and the particular whole-day activity: Assessment Centre Day. The paper considers how this unit expands students' cultural capital through networking opportunities with representatives from industry and considers how students benefit from individualised feedback from recruitment experts. The Assessment Centre Day provides an important simulation of real world recruitment practices and we report on student responses from unit evaluations, activity evaluations and focus group discussion.

This LiWC activity provides an exciting learning environment for students to demonstrate the skills and knowledge they have developed throughout their degree. Students are particularly motivated by the physical presence of 'real' industry people in their curriculum and the program needs to consider ways to make this presence sustainable.

The conclusion includes a review of the liaison processes with industry, highlighting the lessons learnt which have clear implications for the sustainability of engaging industry in undergraduate curriculum.

Keywords: learning in the workplace; engaging industry; Assessment Centre Day

Introduction

An initiative at Victoria University (VU) in Melbourne, Australia, requires that 25% of curriculum must involve learning in and through the workplace and community. VU's Learning in the Workplace and Community (LiWC) Policy requires that LiWC 'activity is beneficial for all parties: learner, university and partner organisation' (VU, 2008). The LiWC approach seeks to achieve a number of interconnected results including improved learning outcomes for students through experiential programs and increased industry engagement with curriculum to ensure currency and relevance.

The Faculty of Business and Law at VU conducted a review of its undergraduate Business programs in 2006 (Papadopoulos et al., 2006). The review into the Business programs surveyed over 700 business practitioners, HR managers, VU Business alumni and VU Business academics. These groups were asked to rank the professional skills and knowledge required of a new, work-ready business graduate. While discipline knowledge was expected – really a given requirement – generic skills were ranked as essential by participants. Qualities such as motivation, enthusiasm, initiative and cultural sensitivity were most desirable or essential *personal attributes* in graduates. *Professional skills* such as the ability to work in teams and demonstrate oral

communication skills were ranked as essential. It is these skills that are particularly assessed in the Assessment Centre activity that forms the core of the case study for this paper.

One recommendation from VU's review was that Business degrees should include three mandatory Professional Development units in first, second and third year that would develop students' employability skills and, particularly in first year, support students' transition into university: *Professional Development 1: Critical Thinking and Problem Solving* (PD1); *Professional Development 2: Analysis and Strategy* (PD2); and *Professional Development 3: Challenge and Leadership* (PD3) were developed to be taught sequentially in the undergraduate degree. Delivery began in 2008.

Similar to VU's survey, *Skilling Business in Tough Times* (AIG & Deloitte, 2009) surveyed CEOs to ask what they looked for when recruiting graduates. Results indicated that employability skills and a positive attitude rank highly (33.1% and 32.6% respectively); while factors like discipline subjects are ranked by less than 10% as important. Most respondents expect that 'Graduates need to be able to hit the ground running' (AIG & Deloitte, 2009). And certainly by the time students have completed their degree, together with the Professional Development units, VU students should be able to hit the ground running. The Professional Development units are just one of many initiatives at the university that aim to enhance students transition to professional roles and a particular way that PD3 does this is through multiple points of industry interaction between students and representatives from industry in various assessment tasks and learning activities throughout the semester. The Assessment Centre Day is only one example of this vital student-industry exchange.

Employability Skills and Professional Learning

Calls from governments, business, alumni and students themselves have emphasised the need to develop knowledge, skills and attributes for the 'real' world during undergraduate study. Graduate capabilities or attributes, also known as generic skills, employability skills and professional literacies, feature especially in undergraduate programs in Australian universities and the drivers for their current prominence in higher education curriculum come from many quarters. Without doubt, universities are increasingly mindful that graduates' transition into the professions or the workplace more broadly should be supported by a range of preparatory initiatives in the curriculum.

Employability skills, also called generic skills, soft skills, professional literacies or enterprise skills (DIUS, 2008), feature in all undergraduate programs in Australia. Their prominence in curriculum comes from the students themselves, industry and professional bodies and from State and Federal Governments. Occupational preparedness is one reason for focusing on employability skills but such skills simultaneously support students' capacity to participate effectively in academic discourse. Employability skills typically include communication skills, teamwork skills, problem solving skills, self management skills, planning and organising skills, technology skills that contribute to effective execution of tasks, life-long learning skills and initiative and enterprise skills (DEST, 2002). Research, defined broadly, is an often-included skill; it is definitely relevant to the role of the professional. The university has a role in the development of employability skills, professional literacies or graduate capabilities (DEST, 2006). Professional literacies should be developed in undergraduate degrees by a range of means and in the three PD units, curriculum developers aimed to develop graduate capabilities incrementally over three years.

In the development of the PD curriculum, the team favoured the phrase 'professionally relevant learning' in conceptualising the curriculum as it suggests the skills, qualities and attributes that are required by a profession as well as the processes through which those skills are learnt. The PD units help to develop students' professional literacies which are embedded in every unit throughout their degree. In fact, all units taught at VU must embed VU's six Graduate Capabilities into the curriculum: 'the university accepts that it has the dual responsibility of enhancing the employability of its students and developing their effectiveness as lifelong learners' (VU, 2008). VU's Graduate Capabilities are like most Australian universities' attributes and the development of graduate attributes has been another way in which universities engage with and are referenced to industry and employer's needs. The terminology changes from graduates skills, attributes, capabilities or qualities, but VU graduates,

like most university graduates, are expected to be able to ‘problem solve . . . locate, critically evaluate, manage and use written, numerical and electronic information; communicate in a variety of contexts and modes; work both autonomously and collaboratively; work in an environmentally, socially and culturally responsible manner; and manage learning and career development opportunities’ (VU, 2008). PD units focus on developing and assessing these attributes.

Professional Development 3: Challenge and Leadership is usually taught to third year students just prior to graduation. All PD units are designed to both complement the seven core units all students undertake and develop students’ graduate attributes in a highly interactive, collaborative and creative way. PD 3 in particular expects that students should be able to demonstrate all of VU’s Graduate Capabilities (VU, 2008).

Professionally Relevant Learning

Both the unit *Professional Development 3: Leadership and Challenge* (PD3) and the Assessment Centre Day held on one of the PD3 challenge days, provide excellent examples of Professionally Relevant Learning (PRL). PRL is an umbrella term that encapsulates the range of teaching and learning activities that contribute to the development of skills, attitudes and knowledge relevant to graduates’ professional roles. PRL builds on the academic skills and discipline-specific knowledge that students develop in higher education curriculum with a focus on the application of theory, academic knowledge and technical skills in a professional context. A current Australian Learning and Teaching Council (ALTC) project, *Engaging Industry: Embedding Professionally Relevant Learning in the Business Curriculum*, is developing a definition of PRL and the unit *Professional Development 3: Leadership and Challenge* has been used as a case study in that project. This paper is an offshoot of that collaboration.

According to the *Engaging Industry* project, PRL encourages deep learning in relation to students’ future professions. It is the process whereby students come to learn from experiences in educational and other settings to develop the critical understandings, procedures and dispositions required of professional roles in a particular discipline area. Compared to the lecture/tutorial format, PRL approaches can be quite resource intensive and can demand creative solutions to problems like teaching spaces, timetabling and student numbers. While PD3’s Assessment Centre Day, which includes multiple opportunities for students to engage with industry experts, might be seen as exemplary PRL, such industry intensive approaches involving large numbers of students raises concerns about sustainability for both academic staff and industry partners.

Industry Engagement

To improve the relevance of university study and to better prepare graduates for the world of work, many Australian universities engage industry in the development, delivery and evaluation of their curriculum. Not only does industry encompass business, government and the professions (Hanlon, et al 2008) but in PD3 it also includes not-for-profits and other community groups. Efforts to engage industry with curriculum – including students – are increasingly various, often time consuming and frequently dependent upon relationships established and maintained by one person – or at least fundamentally maintained by one person.

Industry engagement at Victoria University is strong in most programs in the Faculty of Business and Law. Many programs are accredited by professional bodies – and the accreditation process is a key point of engagement and important point of reference for educators. Industry and business representatives sit on Programs Advisory Committees on Schools in the faculty. Industry speakers, industry-based projects and case studies developed and often assessed in collaboration with industry are routinely used as teaching approaches. Many industries are host to students undertaking work-integrated learning. Generally, the business curriculum at VU promotes Learning in the Workplace and Community (LiWC) as a teaching approach which, together with the many relationships VU has with various industry and professional bodies, combine to enhance business students’ understanding of their chosen field and their transition to the workplace. Importantly, as well as broad university

engagement with industry, programs often attempt to promote opportunities of more individual engagement between students and representatives from industry. This sort of engagement with industry can be challenging for large numbers of students and raises issues of sustainability. However, if curriculum can encourage student engagement with industry resources, products, places and people – which engagement is generally regarded as a valuable motivator for students and a rich source of material for curriculum – universities need to consider both how to ensure that industry relationships are managed and that these points of contact are sustainable.

Australian universities' engagement with the wider community is encouraged by the Federal Government and endorsed by the Australian Vice-Chancellors' Committee (AVCC) which recognises 'the concept of engagement as the third arm of the integrated tripartite mission of universities' (AVCC, 2005: 3). In PD3, 'engagement' involves a collaborative and reciprocal idea of engagement that is still in the throes of developing. Engagement itself can be characterised quantitatively in the curriculum – *number* of industry speakers, *duration* of time spent on an industry task, *frequency* of industry-based activities, *intensity* of industry interaction and levels of reciprocity – but it can best be depicted qualitatively. Engagement in PD3 aims to be interactive and multifaceted. It involves collaboration between university academics, students and industry representatives. Industry engagement in PD3 curriculum manifests itself in the learning activities, resources developed and the evaluation process: industry is a physical, textual and interactive presence in the unit.

Why should industry engage with universities? An Australian Industry Group (AIG) report succinctly notes: 'Employers put a priority on work readiness and expect universities to do the same' (AIG & Deloitte, 2009); employers also expect to engage with universities. Quite simply, engagement between the stakeholder groups in PD3 'delivers mutual benefits' (Hanlon, et al, 2008) with 'transformative potential' (AVCC, 2005). Students' learning outcomes are enhanced through relevant and current learning activities, networking opportunities and other chances to work with industry representatives. VU teachers are exposed to relevant contemporary issues. Businesses can access libraries, professional development opportunities and other resources such as venues. Some industry experts have since been employed as sessional teaching staff on the program and have ongoing input into the program.

Methodology

This paper draws on a number of data collection methods used to collect both student and industry (to a lesser degree) comment on PD3 and on the Assessment Centre Day in particular. Anonymous written student evaluations were collected after each of the 4 block mode days of the semester. Students were asked to rank various teaching and learning activities, were asked open-ended questions about each day and were provided with spaces to explain their responses. Students were asked for general comments in an open-ended question about the worth of each day, for example: *What did you like about Day 3: Assessment for Leadership? What could be improved in Day 3: Assessment for Leadership?* Of the 103 students who attended the Assessment for Leadership day that included the Assessment Centre activity, 59 completed evaluation sheets. These surveys provide specific feedback on the 4 full days. Further anonymous whole-of-unit student evaluations (SEUs) provide overall feedback on the unit and the teaching in the unit. 96 students completed SEUs out of 151 students enrolled in the unit for the period under consideration (semester2, 2009). Of those 96 completed SEUs, 61 contained written comments to the two open-ended questions: *What were the best aspects of this unit?* and *What were the worst aspects of this unit?* In addition to print-based evaluations of the unit, a focus group was conducted by an educational developer in which 10 students were asked about PD3: the unit, assessment tasks, delivery mode, learning activities, group work and industry engagement.

As well as student perspectives on the unit, industry partners were invited to complete anonymous written evaluations at the end of each of the 4 block mode days. For the *Assessment for Leadership*

day, 5 industry experts attended and 5 evaluation forms were completed. Most student and industry responses represented in this paper have been summarised and paraphrased. Where responses have been cited verbatim, they appear in quotation marks and in italics.

Professional Development 3 Case Study

PD3 provides a case study of one way in which VU encourages industry engage in the business curriculum and to play a role in student learning. VU has six Graduate Capabilities. Students are expected to be able to:

- problem solve in a range of settings
- locate, critically evaluate, manage and use written, numerical and electronic information
- communicate in a variety of contexts and modes
- work both autonomously and collaboratively
- work in an environmentally, socially and culturally responsible manner
- manage learning and career development opportunities (VU, 2008).

PD3 has been designed as a capstone unit so that students can demonstrate these Graduate Capabilities, professional skills, personal attributes and academic knowledge in a leadership and challenge context to industry representatives.

PD3 is delivered in a block mode and seminar format. In 2009, the block mode consisted of 4 days, with separate themes that allow students to demonstrate Graduate Attributes in a business context⁵³. For example, the theme of the second day was 'Challenges for Leadership'. Teams of students are presented with a 'live' case study and allocated a time frame to solve a challenge that has been developed in collaboration with industry. Teams present their solution to a panel of industry experts and lecturers. Students are expected to demonstrate the ability to:

- work individually and collaboratively with others to solve complex business problems;
- communicate using oral and written skills through presentations on a complex range of business issues.

Whilst initial industry engagement in PD3 was limited to developing assessment tasks and guest appearances, in the 2009 delivery, industry engagement intensified to a multi-faceted approach infiltrating all stages of curriculum development, delivery and evaluation. With the collaborative development of curriculum in PD3, industry partners provide the PD3 coordinators with business challenges for students' projects. Challenges are real and are from either professional practice (private or public sector) or the not-for-profit or the community sectors. These challenges need to be worked up and selected on the grounds that they are achievable within the time and resources available and suited to the academic level of undergraduate students. Challenges in 2009 include:

1. Smith and Co.2 , a not-for-profit organisation, specialises in the management of mental health, including the mental health of employees at the workplace. With the current economic situation, redundancies, longer work hours, occupational health and safety, liability litigation, Smith and Co. believe employers should be putting more effort into safeguarding employee mental health. How can Smith and Co effectively promote and organise this? (VU, 2009a)
2. Jones's is a retail business currently operating out of two brand outlet shopping centres: Brand Junction (Bundoora) and Brand Smart (Nunawading). The stores sell a range of accessories, including sunglasses, watches and jewellery. Stephen Jones (owner/operator) aims to open another store in the next 18 months. A market survey must be conducted to locate a suitable location for the third store. Additionally, a communications/marketing

53 Day 1: Getting Started, Day 2: Challenges for Leadership; Day 3: Assessment for leadership, Day 4: Trade Fair Exhibition.

strategy to inform potential customers of both the brand and the new outlet will be required. Your proposed solution needs to consider the current retail climate, with a focus on the impacts of the Global Financial Crisis on consumer spending (VU, 2009a)

Students must liaise with appropriate industry partners to solve the challenge. This offers students the chance to further develop their personal attributes and professional skills. Having students work directly with industry partners is not without problems and this engagement must be properly managed.

Industry partners contribute extensively to the block mode delivery days; in particular industry involvement is essential to the 'Assessment for Leadership' day. One activity that is lead by industry experts is the Assessment Centre Day activity. HR experts help design assessment activities to ensure relevance and currency and they run several of the activities on the day. Assessment Centres are seen as one of the best ways to predict 'successful on-the-job performance as they generate objective, observable data on candidates' (GCA, 2008). Assessment Centre day in PD3 covers tests and exercises, including mock interviews, to simulate a work environment. The day replicates a simulation: but 'real' HR experts are involved. The safety of the simulated environment remains central to the learning experience. Students are observed performing exercises typical of a work place. Just as for a 'real' Assessment Centre, the point of the day 'is to uncover [who has] the most suitable personal attributes, problem solving skills and general aptitude, and [who] would fit best and excel within the organisation's structure and culture' (GCA, 2008). Unlike a real Assessment Centre, however, all students receive feedback on their performance.

Assessment Centre Day

Simulations provide students with a chance to behave in ways that are consistent with a real workplace or real processes – such as recruitment processes - but with the psychological safety of a simulation. There is a strong preparatory feel to most undergraduate programs and the non threatening environment of either online and/or classroom simulations is important for building confidence and workplace awareness in students. The ALTC *Engaging Industry* project identified a range of types of learning that contribute to students' professional learning. Simulations feature in a number of these types of professionally relevant learning activities and programs, including online simulations of whole workplaces, simulations in the form of role play, simulations that use 'live data' as part of a case study or simulations that create a business centre. The Assessment Centre activity in PD3 is a simulation of a popular recruitment method. Because HR experts run various aspects of the Assessment Centre – including group interviews – and because those same HR experts provide students with feedback at various stages - the simulation has a strong educative feel together with a sense of 'the real'. The involvement of industry experts in developing the activities for the day, helping to deliver the activities and providing feedback to students at various points during the day is pivotal to the value of the day. This program also provides an interesting model of industry engagement in the business curriculum.

Assessment Centre

'The interview is a selection procedure designed to predict future job performance on the basis of applicants' oral responses to oral inquiries. Interviews are one of the most frequently used selection procedures, perhaps because of their intuitive appeal for hiring authorities' (McDaniel et al, 1994: 599). Despite the popularity of interviews, as McDaniel et al's research suggests, some findings question the value of job interviews as an effective means for selecting employees; indeed, the predictive link between interview success and being suited to a role is far from clear. Even so, as a current and popular recruitment method – combined with written resumes, referees and sometimes a task of some sort – the interview process remains a dominant feature in the recruitment process.

Therefore, PD3 has a clear duty to expose students to the process, to provide students a chance to practice and to give students an opportunity to get feedback on their performance. As well as individual interviews, many companies use group interviews as part of the recruitment process – particularly if they recruit large numbers of staff. Many banks, supermarket chains and accounting companies, for example, use group interviews and clearly students need to be experienced at performing and managing dynamics in group interview situations. Not only does the Assessment Centre Day provide an opportunity to practice at a group interview but, more importantly, students receive feedback from a Human Resources expert. In focus groups, students mentioned this feedback as invaluable.

The *Graduate Skills* (2007) report describes a range of employer practices and a survey conducted by The Australian Association of Graduate Employers Ltd (AAGE) reveals the recruitment practices that are most common with large employers. Assessment Centres feature as an important example of those recruitment practices.

While assessment centres are often utilised by larger employers, the processes they use can vary widely. They commonly include a mix of individual and group activities. Individual activities generally relate to responses to scenarios, reading comprehension, and writing and in some case additional personality or behavioural testing. Group activities commonly include simulations, group discussions or task-based activities, and are primarily designed to assess communication, teamwork and problem solving. Organisations vary as to whether assessment centres are run in-house, but responses clearly indicated that these are an essential part of the recruitment process. Employers repeatedly indicated that the best way to assess the employability skills of a graduate is through workplace performance, generally undertaken in some form of work integrated learning. As this is not always possible, the next best option is to use an assessment centre...In employers' experience it is very beneficial to observe candidates in action (Precision Consultancy, 2007: 44).

Aware of how prevalent Assessment Centres are in the recruiting process and also aware that much of the behaviour being assessed on these days is learnt and improves with practise, PD3 devotes an entire day of their program to an Assessment Centre Day. The Assessment Centre day also provides a vivid example of how industry is engaged with the development and the delivery of curriculum. To prepare for PD3's mock Assessment Centre day, students are sent a message about the day in Blackboard:

All students will be required to undergo a series of assessment centre tests, activities and interviews, which will be modelled on current industry practice. We will be interviewing for a number of mock positions in an 'Executive Training Program' with National Australia Bank. Student performance will be monitored throughout the day and we will advise who the successful applicants are at the end of the day.

Activities and interviews will be led by recruitment experts (assisted by facilitators). Students are expected to prepare and dress as if they were attending a real interview /assessment centre (VU 2009). Students undertake a variety of assessment tasks and activities run by recruitment experts and PD3 teaching staff. Feedback is given to students throughout the day by Human Resources experts. The event concludes with an industry panel discussion providing students with feedback. In the focus group, students said this session was 'useful' and 'very useful'. In particular, the fact that industry experts were not known to students made their feedback more meaningful. These experts were seen as objective, professional and their advice was described as a 'reality check'. One student's comments are typical of what the group said: 'They gave constructive criticism - a different opinion, a different point of view'.

Assessment Day Resources

The Assessment Centre day in PD3 covers tests and exercises, including mock interviews, to simulate a work environment and the recruitment process. Students begin the day by completing a sample version of the Graduate Skills Assessment produced by Australian Council for Educational Research. These questions are typical of the questions used by many major employers and recruitment companies and it is important that students are exposed to the sort of questions common to these tests and they are accustomed to working to tight time limits. Throughout the day, students undertake a number of individual and group tasks to assess their employability skills – and, more specifically, their ability to negotiate common recruitment processes. One Thinking Hats activity focuses on leadership skills, presentation skills, public speaking skills and teamwork skills. Students have five minutes to individually list essential leadership qualities in an interesting and/or innovative way. The presentation takes between 2 – 5 minutes. Other activities require students to demonstrate critical thinking, problem solving and interpersonal skills in a team. For example, students are assessed in a Redundancy Scenario activity. Students work in teams and have 30 minutes to discuss and answer the following questions:

Is redundancy the best solution? If so, why and who would you consider making redundant first?

What other cost saving solutions are available to Sports Elite?

Each student has to speak for one minute as part of a team presentation on the scenario. This is the scenario:

In the current economic climate, people are not spending money as credit is harder to come by and this has had an effect on people's finances and lifestyle. With people spending less, businesses are suffering.

Sports Elite is a medium sized retail outlet, established in 1957, specialising in high end sporting goods (including golfing and horse riding equipment) and located in Collins Street in Melbourne. The company has suffered large losses in profits over the last 18 months and has been advised to make 10% of their workforce redundant in an effort to reduce their running costs.

The company employs 38 full-time employees, 12 part-time employees and 10 casuals.

All of the full-time employees have been working at *Sports Elite* for at least 15 years and none of them work Saturdays.

The 12 part-time employees work an average of 20 hours a week.

The 10 casual employees are all over the age of 21, work the same hours every week usually 15-20 and work every Saturday.

Scenarios are selected because they are complex enough for the time frame, open-ended enough that there is no one right answer and broad enough for students to demonstrate business knowledge, their discipline knowledge, professional skills and personal attributes.

Students then undertake group interviews with HR experts who conduct them as if they are 'real'. Behavioural based questions (sometimes referred to as the situational interview) are used in the group interview as they represent current recruitment practice. Behavioural interviews are centred on the notion that future performance will be based largely on past performance. A set of competencies are determined beforehand and the interviewers use a critical incidental approach to ask candidates to relate, from their total lifetime experiences, situations that they have experienced in the past that indicate the extent to which a specific competency has been attained (Nanakervis et al, 2008: 241). Students 'total lifetime experience' maybe quite limited due to their age; even so, competencies that are assessed are appropriate for students and the questions are designed to ensure that students would

be able to draw on some experience. For example, one of the competencies assessed is the ability to work in teams. Students were asked to describe a situation when working with a team had produced more successful results than if they had completed the work on their own. To answer this question, students were able to draw on their experience at university in addition to any relevant work experience. The key competencies that were assessed in the group interview were the ability to work in teams, problem solving skills and interpersonal skills. These competencies were selected because they are amongst the top five professional skills and personal attributes that employers want (Papadopoulos et al, 2006). In addition, these are some of the more common competencies assessed at 'real' interviews.

Student responses

Students view industry engagement very positively. Students see industry's mere *presence* as offering opportunities and benefits – as well as increasing the formality of the occasion. 'Real', 'reality' and 'actual' recur in student comments – both verbal and written - and students seem to privilege the credibility of industry partners over VU teaching staff as representing a somehow '*more real*' world. Industry engagement offers '*a reality check for what to expect when you work*'. Assessment becomes '*actual and real*' since '*real industry professionals were present*'. Students believe that industry experts are more '*critical of what [we] say*' and this makes them '*try and anticipate more*'. Student responses from the written evaluations in response to the questions *What did you like about Day 3: Assessment for Leadership?* and *What could be improved in Day 3: Assessment for Leadership?* ranged over 4 key themes: the authenticity of the activity, the importance of feedback from industry partners, the usefulness of the activities and a desire for more interactivity with industry representatives.

The '*realness*' of the day; students written comments consistently indicated that the day was '*real*', they liked hearing from real people from industry, they valued the feedback from '*real experts*'. Furthermore, students felt that they now had a much better idea of what to '*expect at interviews*' and they liked '*the ability to be assessed by industry professionals and to get feedback*'. Secondly, students placed a high value on the feedback that they got from industry experts: feedback was seen as '*helpful*', they were given '*tips*' on interviews and applying for jobs. Thirdly, the day was seen as very '*useful*' and '*helpful*' for students. It was a '*good experience*' because most of the students are final year and are about to start applying for positions. This theme appears to cement the relevance of the day for students to the '*real world*'. Fourthly, students would have liked more time to have individual interviews and the opportunity for '*more feedback*'. The Assessment Centre Day was also singled out in the focus groups as a valuable learning experience. In the data collected from the anonymous Student Evaluation of Unit, the 61 of the 96 completed forms that answered the question *What were the best aspects of this unit?* consistently mention the unit's connection with work preparation. Students typically recognise that PD3 '*prepares [students] for work*' and '*for the professional world*'. The other dominant theme that emerged was that students valued the opportunity to '*demonstrate*' and '*practice*' their '*professional skills*', whilst applying '*their knowledge, skills and attributes to practical work*'. The opportunity to practice was '*good*' and '*helpful*'. Thirdly, students placed a high value on the engagement of industry. Students liked '*meeting industry professionals*', they saw worth in '*having the opportunities to present to industry*'. Students' comments suggest that the design of the curriculum had assisted with their work and professional readiness. These two comments sum up the positive feedback on the Assessment Centre Day in particular:

Assessment centre day was very good & allowed me to gain good feedback to progress in graduate jobs

Learned so much and gained excellent information especially in the Assessment Centre Day

Overall, students attribute industry engagement in this day for them feeling '*better prepared for work*'.

Industry responses

A basic, positive industry response is that industry partners see that their engagement with PD3 benefits students. They recognise that their professional expertise provides *'a challenge and tests [students'] skills and capabilities'*. Partners appreciated the *'enthusiasm of students'*. They enjoyed *'the great atmosphere'* and were impressed that students were *'genuinely engage[d] when answering questions and receiving feedback'*. Interestingly, responses are positive about just interacting with students: *'it was great fun'* and a *'great opportunity to be involved'*. Three themes were identified in the evaluation sheets of the 'Assessment for Leadership' day from recruitment experts. Firstly, the recruitment experts found the day a worthwhile experience. A number commented that they *'enjoyed giving the feedback'* to students and felt that they were *'making a difference'*. Secondly, the value of a *'real'* process, the recruitment process, *'gave the students a good example of what happens in industry, many of whom have not worked and/ or gone through a process like this'*. Thirdly, the recruitment experts would have liked more time to *'give more individual feedback'*.

Conclusion

With students wanting more feedback and time with industry experts and with industry experts willing to provide individual feedback to students, the comments in evaluations augur well for the future of industry engagement for the Assessment Centre Day activity in PD3. The challenges faced by the unit coordinators of PD3 include the time commitment from academic staff to engage with industry alongside other commitments to research, students, administration and just plain teaching, the need to ensure that the relationships with industry experts are being properly managed (that is, industry representatives are not being inundated with requests from staff and students and that they are either paid or adequately rewarded) and that industry experts are being properly supported to understand their role, the institutional context and any relevant Teaching and Learning Policies. Ideally, industry experts should not just turn up for a day – deliver a lecture, sit on a panel – and disappear. Input from industry representatives should inform the curriculum, especially the curriculum of units like the Professional Development units – at development and delivery stages. Industry representatives should also be involved in the evaluation of the worth of resource intensive professionally relevant learning activities like Assessment Centre Days; they should be involved in the evaluation of student learning and the evaluation of the programs. Intense levels and multiple points of contact and exchange will be a challenge for the sustainability of industry engagement in the business curriculum: it will require an ongoing partnership that is resourced. Assessment Centre Days provide valuable learning experiences for students. But they are just one day each semester – and even that can seem like a lot of organizing, a lot of extra staff who are not necessarily committed to the program and loads of goodwill from all parties.

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Connecting Students through Communal Reflections: using online discussion to expand workplace learning for the legal professional

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There is an increased expectation that Australian universities should assume responsibility for ensuring that their graduates are work-ready. Victoria University (VU) in Melbourne is in the midst of implementing a commitment to Learning in the Workplace and Community (LiWC) which requires that 25% of all courses involve learning in and through the workplace and community. The LiWC approach seeks to achieve an enriched learning experience for students through workplace learning, increased industry engagement with curriculum and enhanced work-readiness in our graduates.

Work placement as a teaching strategy has a long tradition in legal education and, indeed, the historically and legally entrenched value assigned to the experience of the “real” work environment as basic to the student of law and training of legal professionals considered worthy of admission to practice. In the Law degree at VU, work placements have often occurred outside the curriculum and have often been invisible in terms of measurable learning outcomes. Law in Practice is a new unit that provides a way to accredit and recognise the learning that occurs in the legal workplace. It also invests the workplace with academic rigour to ensure that it is a professionally appropriate and rich learning space. As well as reporting on the curriculum design of the online unit and evaluations of student learning in a pilot of Law in Practice activities, the discussion will draw on generalised analysis of student journals to report on student responses to LiWC as a learning experience enhanced through personal and social reflection in online discussion.

Introduction

Law in Practice (LiP) is a proposed unit in the Law degree at Victoria University (VU) in Melbourne. LiP is one of several units in the Victorian Law School that forms part of the School’s Work Integrated Learning (WIL) program which is the principal approach the School has adopted to meet the requirements of the university’s Learning in the Workplace and Community (LiWC) Policy which demands that 25% of all assessment in Higher Education is achieved through Learning in the Workplace and Community.

Work Integrated Learning is widely regarded as the key means through which profession-readiness is might be achieved. Victoria University is implementing a commitment to Learning in the Workplace and Community (LiWC) which requires that 25% of all courses involve learning in and through the workplace and community. The LiWC approach seeks to achieve an enriched learning experience for students through workplace learning, increased industry engagement with curriculum and enhanced professionalism in graduates. LiP clearly represents a 100% LiWC component in the Law degree at VU. As an elective, however, not all students are required to undertake this unit.

LiWC is an umbrella term that includes all of the teaching approaches that include some engagement with, in the case of legal programs, the legal profession: this could include case studies developed or delivered or assessed in collaboration with legal practitioners, simulations of work situations such as mock court, student observations and reflections of court proceedings, working on ‘real’ legal cases offered by law firms with support from academics, role playing legal situations with feedback from practitioners or a work placement in a legal role in a legal workplace. VU’s LiWC approach generally

seeks to achieve a number of interconnected results including improved learning outcomes for students through experiential programs and increased industry engagement with curriculum to ensure currency and relevance. For the Victoria Law School at VU, the LiWC approach adopted in its WIL program aims to also increase the students' sense of themselves as professionals with a capacity to critique, reflect and to behave ethically and thoughtfully in the legal workplace.

Aspects of this new unit have been piloted in an already existing unit, Professional Legal Practice. Professional Legal Practice sees students working in the legal workplace. While many universities are now focusing on producing 'work ready' students, professional education in Professional Legal Practice aims to see students develop and demonstrate the standards of professional education which includes professional ethical responsibilities. Law in Practice, alongside other units in the School's WIL program, is part of VU's attempt to prepare students who are disciplinarily, ethically and personally ready to work in the legal profession.

History and Context

Victoria Law School formally embraced work-integrated learning in 2005, acknowledged through a professional skills elective which recognises the situated learning experiences of students. While all Australian law programs have included skills-based programs since the late 1970s, true work-integrated learning remains relatively rare. As a focus on external engagement is a feature of many universities' missions, levels of work-integrated learning may be set to increase. Most of the practical experiences available to VU's students of law take the form of volunteering, work experience and part-time work, organised primarily by the students and not always connected to the law degree itself.

It is perhaps surprising that there is not a stronger history of situated learning in a professional discipline like law. In most Common Law countries (Australia, Scotland, Ireland, Britain, Canada, New Zealand, Malaysia, India, etc) the practical aspect of legal education generally takes place after the completion of the law degree and has been most often delivered by organisations other than law schools, through articles, legal practice courses, bar examinations and through the bar apprenticeship system. In the early twentieth century, law schools kept closer ties to the profession. During the post WWII period of modernisation, however, law schools departed from the apprenticeship model and formal, accredited legal education was disconnected from practical, situated learning (James, 2000).

Law schools have generally been reluctant to recognise work-integrated learning. Some law schools have maintained clinical education programs that give students experience of legal practice and others might offer mentoring programs. Where these are connected to the curriculum, students are evaluated on the basis of their technical and administrative skills, closely supervised by clinical educators. This process is extremely resource intensive and opportunities have only been open to a handful of students; this means that these approaches are neither equitable nor embedded in the curriculum – but rather optional extras for a few. Changes to the funding model for law schools have meant that these programs have become very expensive to run and most are under threat from budget rationalisation. The broad understanding of LiWC at VU means that clinical education programs are just one way of many that might achieve practical, applied and supported experience of being a legal professional.

Each semester, VU law students work in law firms and businesses that employ lawyers. Some students are paid, some are voluntary. Some are in small firms, some are in court settings. Internships, work placements and work experience have long been a part of legal education after the completion of the academic component. The importance of the legal workplace as a site through which undergraduate – and even first year students - might form a more authentic sense of what it means to be a legal professional, have an opportunity to apply legal theory to practice and be deemed worthy of working in the profession cannot be underestimated. While work experience has variously been regarded as time served, a chance to put theory into practice, real world learning and “the only way to develop...legal literacy” (Beattie, 2010: 6), as the key means of teaching and learning in accredited

units like Law in Practice and Professional Legal Practice, the learning fostered by this experience must be assessed – and rigorously assessed according to specific academic and professional standards that demonstrate a range of personal, academic and professional attributes – from written communication, ability to apply legal principles, the capacity to reflect and the demonstration of legal literacies. Law in Practice, through legal work and personal and social reflection on practice, aims to provide a learning space for students to further develop their legal literacies. The assessment of Law in Practice provides an opportunity for students to “walk the walk and talk the talk” of the legal profession which can only be demonstrated in an interactive, communicative, social and structured way. Importantly, and more than just “walking the walk”, students can also critique the discourses of the legal profession. Ideally, students will be empowered to enter the legal profession as literate but critical novice professionals.

The tradition of internships and work placement in law is strong – but crucially it often occurs *ex post facto* and so it used as a summative form of assessment (assessment of learning) rather than a formative form of assessment (assessment for learning). More broadly and well beyond the legal profession, there has been a long tradition of using reflective assessment in work placements to engage learners in the work environment and assess their understanding of workplace culture, professional identities and roles and responsibilities in the workplace. The rigour of such assessment tasks is often dubious and the reputation of the reflective genre needs to be explicitly required and explicitly assessed or the danger of students lapsing into merely descriptive “dear diary” reflections is real.

LiWC in VLS

In the Law degree at VU, work placements have often occurred outside the curriculum and have often been invisible in terms of measurable, comparable and document-able learning outcomes. Law in Practice, however, provides one way to accredit and recognise the learning that occurs in the legal workplace. It also serves to invest the workplace with the academic rigour to ensure that it is a professionally appropriate and rich learning space. As an assessed unit, Law in Practice visibly complies with the university’s Learning in the Workplace and Community (LiWC) policy which responds to the increased expectation that Australian universities should assume responsibility for ensuring that their graduates are ready to assume a novice position in their chosen profession.

In this paper, we especially consider the use of Blackboard to support Learning in the Workplace and Community (LiWC) – and in particular the use of online journalling which, although achieved in Blackboard for this unit, could be undertaken using any number of freely available products online. The focus, however, is how, through highly structured online activities, including communicative activities, academic rigour is embedded into the workplace learning experience. As well as reporting on the curriculum design of the online unit¹ and evaluations of student learning in a pilot of Law in Practice activities, the discussion will draw on generalised analysis of student journals and qualitative comments in student unit evaluations to report on student responses to LiWC as a learning experience.

With a Teaching and Learning Support (TLS) grant from the university, LiP was reconceptualised so that Blackboard provides a structure through which students are supported and directed in their work-based learning. Blackboard functions help to structure relevant and scaffolded prompts for reflection that require the student to actively engage with specifically legal situative learning. A transmissive flow of law- and learning-related information to students is important up to a point; that is, students are provided with relevant texts, cases, laws and questions in order to reflect rigorously on their individual workplace as a learning context and, indeed, text. Important, too, is that in addition to this highly individual activity of observation, reflection and reporting, students need to use Blackboard communication tools to interact with both academics and student peers in other legal work places.

This online forum – through both discussion and email – provides a vital space for students’ disparate and distinct legal workplace experiences to come together. The forum particularly exposes students to different legal workplaces and effectively amplifies ‘the workplace’ to more diversely represent the possibilities for the legal professional. This increased awareness of the multiplicity of legal workplaces enhances students’ abilities to theorise and generalise their personal experience. Certainly the Blackboard communication tools help to create a virtual intersection between the professional space, the academic teacher and the students’ emerging professional identity that makes the LWC physical experience all the richer. Any number of Web 2.0 social tools could be used to achieve a similar outcome for online journalling.

The need to learn through reflection on workplace activity, experience and observation and the ability to demonstrate that individual learning is one aspect of the assessment in the WIL component of units like Law in Practice. A broader learning, however, is also required in that students must post their reflections online in a group Discussion forum which moves their personal reflection to a more social setting thus allowing for a broader sense of the legal community to develop. Finally, as this community of would-be legal practitioners document and reflect on their individual work place experiences, read, comment on and interrogate the reflections of others in the unit, an even broader learning is taking place that makes this situated learning experience holistic, participatory and at the conceptually immersed level of legal discourse: that is, “the conceptualization of the intimate connection between participation and the social and cultural world within which that participation occurs” (Quay, 2003: 109) means that the learner has moved from an individual workplace experience, to a more social learning experience of many workplaces to a community of fully participatory novice legal professionals with considerable confidence to both critique and eventually transform legal roles.

The VLS program uses a reflective learning model, delivered via online journalling, for a number of its WIL programs. The advantage of reflective learning is that it assesses the student’s ability to self assess and learn from the work context, rather than assessing the work itself. This displaces the heavy assessment burden of conventional clinical education and allows students to develop as responsible ethical practitioners, even to collectively learn from reflecting on mistakes rather than attempting to conceal them. It also creates a more comparable learning outcome – as workplaces are diverse.

Work Integrated Learning

VU’s law students learn in a variety of volunteer and paid workplaces. Some work as paralegals or legal secretaries in firms while others volunteer at community legal centres. Other students are involved in legal support roles such as public help lines in government departments or they work in legal policy in corporate workplaces. Victoria Law School also runs a variety of programs such as the Sunshine Youth Hub and the Magistrates’ Court Duty Lawyer support program which also provide work opportunities to students. Many students draw experiences from a variety of different contexts but the learning outcomes for units like Professional Legal Practice and Law in Practice are the same, irrespective of students’ locations and even work experiences.

The coursework for WIL that involves work placement is primarily delivered through online journals, the contents of which are only available to students in the course and the relevant legal academics. While some employers have requested access to the journals, it was decided that this would not encourage full disclosure and discussion of workplace issues. In their journals, students only report de-identified data and are trained in issues of confidentiality and ethical communication (Victoria Law School, 2006). The reporting of workplace events and issues, then, offers another opportunity for students to apply legal concepts.

Assessment in WIL programs focuses on discussion of work based case studies and production of a folio based on the student’s reflective journals. While academic staff observe the development of

journals and provide guidance through regular feedback, they do not assess this part of the process. Only assessing the final folio allows staff to manage their marking load and encourages students to engage in second order reflection when they select journal material for further discussion in the final folio. Originally these journals were left open for general discussion to develop, but during curriculum development we have realized the importance of providing more structured discussion and themed journal topics to give guidance for students.

Reflective learning has gained popularity in legal education. While many academics have doubts about the rigour of the process and prefer traditional doctrinal education, reflective learning promises benefits beyond the recognition of situated learning. The Committee of Australian Law Deans focused on reflective learning as a method for delivering ethical and professional education and a way of dealing with worrying statistics about mental health issues in the profession (CALD 2008).

Students collectively make meaningful their individual workplace experiences through social interaction (Quay, 2003: 107) online; quite obviously, “communication is at the root of [this] effective learning community (Cassidy, 2008). The role of the legal academic in both the communicative element in this learning context and the curriculum design is vital. While the shift from teacher to students is essential for constructivist learning – including social constructivism – the design of the teaching and learning activities and the comments posted in online discussion are central to the success of the students’ learning experience. Academics might assess student work and observe and participate in the discussions around each reflection – and from these experiences extrapolate what learning is happening. In asking the students to comment on the learning experience, the role of the work place in their learning and the function of the online Discussions, those extrapolations are extended, challenged and enriched.

Reflection

The role of reflection in experiential learning is well established (Kolb, 1984) –and the idea that experiential learning is “learning by doing combined with reflection” (Priest and Gass, 1997: 136) is well-ingrained in LiWC curriculum. The role of reflection in professionally relevant learning is significant in itself⁵⁴ but with work placement, reflection as the key learning activity that makes meaning of the individual experience in the legal workplace and the legal role is integral to the learning experience. In fact, reflection in a journaling task is “crucial...[in] practicums or work-based learning” (Beattie, 2010: 6) precisely because it connects knowing content (discipline knowledge), to using that knowledge and then knowing how and why to use knowledge: all the knowledge forms that Biggs argues are necessary for functioning knowledge are present in this learning situation (Biggs, 2003). In particular, Beattie emphasises the link between the capacity to reflect and the professional: “reflective learning techniques enhance the development of professionalism through ethical engagement” (Beattie, 2010). The skill of reflection in the development of a professional identity is well established. The genre of the reflective journal manages to “tread the fine line between personal issues and professional development” (Hubbs & Brand, 2005: 64).

The learning theories that underpin both experimental learning – in this instance, in the legal workplace – and reflective learning are evident in the learning activities and assessment tasks of Law in Practice. The use of the communication tools in Blackboard is solidly supported by learning theory. Teaching through collaborative reflection using Blackboard Discussion offers a particularly rich example of situative learning whereby the focus moves from “the individual as learner to learning as participation in the social world” (Lave & Wenger, 1991). While, in this case, the social world is specifically that of the legal professional and for the most part online, it is nonetheless, importantly, social. Situative learning theories are useful in an analysis of LiWC activities as they foreground the role of context in learning. Arguably, situative learning theories are compatible with constructivist

⁵⁴ A current ALTC-funded project, *Engaging Industry: embedding professionally relevant learning in the business curriculum*, has identified reflection as one type of professionally relevant learning.

learning theories – and this analysis ranges through a number of similar learning theories and draws on the education literature of experiential, constructivist and Learning in the Workplace (LIW) learning to examine the learning activities and student responses in Law in Practice. In particular, key ideas of constructivism, social constructivism and cultural discourse provide (Carver, 1996; DeLay, 1996; Quay, 2003) rich theoretical approaches for framing a consideration of LiWC activity.

The link between the constructivist idea that students draw on their prior knowledge to actively make meaning in a new context encourages deep learning (Biggs, 2003) and the experiential learning expected of work placement is clear. Constructivist teaching and learning requires a dynamic learning situation; it requires that students and teachers are responsive, interactive and supportive and that learning activities and resources are scaffolded and carefully sequenced. Constructivism is a psychological learning experience that focuses on the individual's learning. As such, a constructivist approach informs the individual reflections required of the unit, while social constructivism informs the purpose of the collaborative nature of the online postings and the requirement that students comment on each other's work. Generally, students are required to comment on at least two other postings for each reflection.

Law in Practice - making it rigorous and communal

Ostensibly, learning in Law in Practice happens in the workplace but that idea is severely limited. Location, as such, does not engender learning: instead, the learning is facilitated by highly structured activities and prompts for reflection that require students to make meaning from the texts – the discourses - encountered at work. Importantly, learning also happens in an online community of Law in Practice students – with the voice of the lecturer an important factor in the learning process. “The space created by each writing technology permits certain kinds of thinking and discourages others” (Snyder, 1996: p. 5) and the space created by online Discussion in synchronous forms like Chat or asynchronous forms like email and discussion, creates a collaborative, dynamic and social - yet collectively private - space to reflect and construct meanings about legal roles and legal concepts.

Online journals within the highly structured Blackboard shell of Law in Practice are vital. Admittedly, online discussions could have been achieved in any number of Learning Management Systems, but the combination of Learning Modules, Discussion, Email and Chat within Blackboard provide a space that is simultaneously highly structured and which allows both synchronous and asynchronous discussion. The social context provided for the individual learning is crucial. Blackboard provides the structure and the law academic working together with an instructional designer have sequenced all of the resources and learning activities/directives that contribute to the student making meaning of their workplace and role. For example, one online activity asks students to read an article about public perceptions of lawyers. They then need to describe the relationship between the clients and the organisation they are in. Further, they need to think about expectations of lawyers, both from the client point of view and from their organisation's perspective. They then post their thoughts online, read and comment on at least two other postings. This is typical of the sorts of activities throughout the unit that really *use* the workplace – its clients, polices, documents, staff, spaces – to learn. Further, the legal academic is online daily to comment on student reflections and to reply to personal emails within Blackboard. The frequency of the online presence of the law academic is essential to the success of the online support: students must know that they are writing to someone.

It is timely to mention that the need for institutional support for academics who have discipline knowledge, professional networks, teaching expertise but who have not have time or support to consider the functions of Blackboard nor study the design of online curriculum is a particular consideration for a university such as VU which has a commitment to achieving 25% LiWC in all courses. VU does support academics through Teaching and Learning Support grants – but these do not extend to every unit being taught. Blackboard provides a range of means by which student learning in LiWC contexts might be supported and enhanced but opportunities for academics to work

closely with experienced instructional designers with both a different set of skills and a keen sense of how students learn must be created and resourced.

Blackboard design

While the communicative capacity of Blackboard (email, chat and discussion) is available through a range of other platforms and freely available social networking products, in many respects, the contained environment on the Blackboard unit that has been developed for Law in Practice has been purposefully developed to encourage structured and rigorous learning in the workplace: learning that is linked to appropriate legislation, legal principles and research. In using the Learning Module function of Blackboard, the students are directed through a range of learning activities that are scaffolded in a way that aims to make their online journalling academically as well as personally rich. The curriculum team aimed to create targeted ‘triggers’ for reflection – so that irrespective of where the student might be, they would be prompted and able to reflect on their client base, the communication methods of their workplace, the gender balance of and roles of staff in the workplace and so on. Importantly, through online journalling, students also share this information so that the vital element of learning – that is, ‘what the student does’ (Biggs, 2003) - is extended to include what the student describes, analyses, imagines, compares, links...in the workplace and online.

What students do

Journalling at an individual level helps students to make meaning of their workplace experience: it is an internal reflective process in keeping with Kolb’s (1984) emphasis on that reflective processes are both necessary to engage the learner and create meaning from the experience and with constructivist learning theories that place the learner at the centre of the learning experience as an “active agent in his or her knowledge formation” (DeLay, 1996: 77). Kolb’s stages of experiential learning fit the approach adopted in Law in Practice: 1) concrete experience; 2) reflective observation; 3) abstract conceptualisation (of the law, of the identity of lawyer – explore explanations, offer interpretations); and, 4) active experimentation or application (new meaning). “Reflective journaling, *selectively guided by the instructor*, can help the student progress through Kolb’s four stages” (Hubbs & Brand, 2005: 61, italics added). Hubbs and Brand’s comment provides an important reminder – the role of the legal academic and the need to structure resources and activities to support the process are central to the learning experience; simply being in a workplace is not sufficient.

Peer support for WIL through online journalling

Social constructivism expands the individual constructivist understandings of learning believing that “collectives of persons are capable of actions and understandings that transcend the capabilities of the individuals on their own” (Davis et al., 2000: 68 cited in Quay, 2003). Online communication tools enable the social constructivism intended by this assessment task and effectively. Not only do students share their individual experiences. Importantly, they also deal with the problem of the limited representativeness of “the workplace”. While the VU policy expects that LiWC compliance will be achieved through some sort of engagement with industry, the who, how many points of engagement and the where of engagement is territory left unquestioned. It clear that no one person can represent all of the views, positions and knowledge of the legal profession. It is clear that no one legal work place or role can represent the law firm. It is also clear that interaction with limited people and places might develop in students a skewed notion of what the legal profession entails. Together with developing individual students capacity to reflect on their own roles in a particular legal work place, online journalling also ensures that students are exposed to multiple legal work places, roles and issues. This multiplication of workplaces increases the intensity of the students’ learning experience.

Apart from the generally positive comments that students made about connecting up with students in similar situations to themselves and in receiving support, advice and camaraderie from both students and legal academics moderating and facilitating the discussion, there have been a number of situations in which the online support has been identified as emotionally crucial for students. For example, as junior members of staff, VU students in legal workplaces have often found themselves dealing with difficult clients, sometimes those suffering from poor social skills or mental illnesses. The journals have been rich sources of peer support and discussion of client management skills.

Furthermore, students have generally found the journal offers a safe space for discussion of workplace professional issues beyond the clients. Law firms tend to be autocratic and students have discussed methods of managing, the problem of demanding employers and the balance between asserting your rights as a worker and the need to maintain good relations within the profession. One student worked in a firm where the partners were undergoing a relationship breakup which provided a unique challenge to that student maintaining professional conduct in a conflicted workplace. General support to this student's generalised reflections proved invaluable.

Other students have expressed concerns about instances of workplace bullying and rely on their peers for online advice and support. In the legal profession, where unpaid overtime and high stress environments are commonplace, the boundary between acceptable and unacceptable workplace conduct can be difficult to perceive or manage. The unfortunately recurring problem of workplace bullying has been another reason to keep employer's feedback separate from the unit's assessment structure. It is also a further reason to continue with online journalling as the support and advice to students working in these conditions is essential.

Law school Ethics programs tend to focus on compliance with formal legal rules and so students, when in real legal situations, might find it difficult to contextualise professional issues, for example, such as duty to a client. One of our students was involved as a paralegal in a family law conflict where their client had been accused of sexual abuse of the children. She found that the reflective process was very useful in balancing her own personal ethical values and the professional ethical importance of providing fair representation to the client.

Several students working in criminal law have discussed the importance of the right to a fair trial and the dangers of any one person deciding on the guilt or innocence of an accused person. Most legal roles require that students are able to act ethically and be seen to act ethically. They need to balance a range of rights and to maintain their own sense of personal integrity. To be able to share reflections and questions about how to behave in the workplace amongst a trusted group of colleagues at a similar level and to obtain the support of a legal academic who is outside the workplace loop, is an invaluable learning experience.

Communities of understandings: legal discourse

Discoursal ideas of how meaning – including ethical positions - is constructed are broader than social constructivist ideas of collective understanding. Having both participated in and contributed to an understanding of legal discourse, students are now in a position to have a better understand of legal culture and have a foundation for understanding themselves as legal professionals operating in that culture. As Quay (2003) states: "Culture represents knowledge at the societal level. In effect, "individual knowing, collective knowledge, and culture become three nested, self-similar levels of one phenomenon" (Davis *ibid.*: 70). Those levels are evident in the online activities.

Legal identities: reflective professionals

The qualities of the legal professional include many attributes and qualities beyond disciplinary expertise. Many legal academics talk about the need for students to “think like a lawyer” – and they have a distinctive world view in mind when they say this. What does it mean to “think like a lawyer”? More importantly, what does it mean to behave like a lawyer? “The activities of many communities are unfathomable, unless they are viewed from within the culture” (Brown et al., 1989: 33): situated learning that is supported by an online community of peers and a law academic means that novice legal practitioners experience enculturation into the discourses of the legal profession. Through the collaborative approaches of social constructivism, these students are supported to compare, critique and transform that discourse. Situated learning demands that law students are learning in legal situations but, given the diversity of legal roles, it is important that, through online journalling, the situations of legal situated learning are multiple and varied.

Concluding comments

Various programs in the Victoria Law School that showcase VU’s commitment to Learning in the Workplace and Community (LiWC) through workplace combine situated learning with reflective assessment. Reflective capacity is not only a key requirement of the professional, it is a key methodology for developing professional identities – especially when the reflections are triggered by workplace practice, culture and events and amplified and commented on in a communal online setting in a context of trust and support and mutual learning.

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Embedding work-integrated learning in the business curriculum

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A priority for many Australian universities is the incorporation of work-based, experiential learning opportunities into undergraduate programs so that graduates are flexible and ready for the workplace. Intentional, organised and accredited work experience can provide a powerful learning opportunity (Smigiel and Harris, 2007). Work integrated learning (WIL), when properly planned, ensures an easier student transition from study to employment and the development of skills and attributes that are difficult to foster with academic studies alone. This paper describes the implementation and evaluation of a course which embeds WIL in the Business undergraduate program at an Australian University.

The course, Project in Business, was developed to give final year students the opportunity to complete curriculum aligned work integrated learning *projects* as an integral part of their academic program. The projects, relevant to students' *discipline* majors, were supplied by the local business community. Completing a project alongside professionals, students had the opportunity to not only gain industry experience and insight, but also establish links within the business community and a network that will advantage them when seeking future employment. Whilst student contribution to the workplace was important, the central focus of the course was on university level learning: grades were awarded based on written accounts of projects and evaluations of workplace experiences, not the time spent in the workplace or amount of work accomplished. Early indications suggest that students successfully completing the course have increased their skill and knowledge base, experienced the culture and ethics of the workplace and engaged with the professional identity of their discipline. However interviews with workplace supervisors and students identified several challenges which will need to be addressed if WIL is to be made available to a greater number of students. The key issues being the need to develop effective assessment methods; the challenge of making WIL available to low achieving students without disenfranchising local firms; conflicting expectations among stakeholders; and the increase in staff workload, and resultant resourcing issues.

Keywords: Embedding WIL; Business course; resourcing; workload; low achieving students

Introduction

A priority for many Australian universities is the incorporation of work-based, experiential learning opportunities into undergraduate programs so that graduates are flexible and ready for the workplace. These universities have strategic plans for work integrated learning and a strong institutional desire for improving student experiences in both practice and academic settings to generate the kinds of learning required to secure an effective transition to employment. Nationally there is a demand for university graduates to be more effectively prepared for and able to move smoothly into the workplace (IRU Media Release, 2009). In short, there is a desire to ensure students are 'work ready' upon graduation.

'Work integrated learning (WIL) is the generic term used to describe a range of programs which provide students with a combination of workplace experience and formal learning which are integrated as part of a course of study in higher education' (Precision Consultancy, 2007, p.29). The features that WIL programs share are:

- They are based on identified industry needs and expectations of graduates and employees which are integrated into the curriculum
- There is a work component as part of the curriculum design
- There are industry partners who, in addition to providing advice on curriculum design, also provide workplaces for students to gain experience
- There is a formal system which supports the students and provides a framework for organising and assessing the students' work and experience. (Precision Consultancy, 2007, p.29)

In a study of employer satisfaction with graduate skills it was reported that 75% of university graduates were not suited for the jobs for which they applied (Eunson, 2000). This suggests that, even though the majority of university students have workplace experience through part-time jobs, their skills from part-time employment are not necessarily in their area of specialisation (Vickers and Singh, 2008). WIL can assist students to find ways to translate skills from part-time jobs and university studies to suit professional contexts. When providing WIL opportunities for students, the challenge is to determine the nature of the learning experience and skills that will be most beneficial.

Work-based practical experience via practicum/internship programs is well established as a central feature within key professional courses at most universities (eg. medicine, nursing, teaching). It has been less common in more generalist courses. This paper describes the implementation of WIL into a Business program at an Australian University. While work experience opportunities have been provided to Business students in the past, they have not been *integrated* into the degree program. Past programs include industry scholarships, which provided some students with the opportunity to combine studying for their degree and placement with their Sponsor company, and vacation work experience, which gave undergraduate students exposure to the practice of their discipline by placing them in unpaid work experience positions of 1-3 weeks with local 'employing organisations' during the summer vacation. A new course, *BUSN3001*, Project in Business, has been developed to give Business students the opportunity to complete *curriculum aligned* work integrated learning *projects* as an *integral* part of their academic program. The course offers students the opportunity to participate in an industry attachment with a local organisation to complete a project alongside professionals. Students not only gain industry experience and insight but also establish links with the business community and a network that will advantage them when seeking future employment. Within a guided research project⁵⁵, students identify an organisational problem, explore relevant literature, develop appropriate solutions and construct a final report.

The paper is organised as follows. First, the course design is described. Second, feedback from the first group of students and workplace supervisors to participate in the course is reported. Third, key issues to emerge from the initial offering of the course are discussed.

The course design was informed by the *WIL Principles of Good Practice*⁵⁶ (shown in *italics* in the following section):

Course Design

Pedagogy and curriculum practices

(a) **Embedding WIL in the curriculum**

At the program level WIL experiences are designed and delivered with appropriate attention paid to:

- *The specific context of the discipline area*

The projects undertaken by the students are aligned with the major sequence being undertaken (Human Resource Management, Marketing, International Business, Management, Tourism, Supply Chain Management, Accounting, Finance or Economics). The projects are purposefully designed to provide students with the experience of putting the theory of their *discipline* major into practice in a workplace setting.

- *The appropriate positioning of WIL experiences within the overall program design and sequencing of units*

⁵⁵ The projects were initiated and organised by the University: local firms interested in providing projects were identified with the assistance of the local Business Chamber.

⁵⁶ Adapted from *WIL Principles of Good Practice*. This document was one of the outcomes of the Innovative Research Universities Australia (IRUA), Leadership of Learning and Teaching Forum on Work Integrated Learning, held in Brisbane, 30-31 October, 2008.

It is important that WIL is designed as an integral part of the curriculum, rather than an added extra: if not written explicitly into the curriculum and assessed, WIL would be unfocussed and unproductive. A review of the Business and Commerce programs placed *BUSN3001* in the final semester of the three-year undergraduate program. At this point students have completed most of the core courses and at least half of the courses in the major sequence of study – they were therefore taking to the workplace a body of knowledge on which the experience could build. Positioning the course at the end of the program ensures that the workplace supervisors accepted the students as emerging professionals.

- *Defining the necessary duration of WIL experiences to enable the learning objectives to be met*

Projects are limited to 12 weeks. As courses are semester based, the over-arching constraint is that projects are undertaken between weeks 1 and 12 of either semester 1 (March – June) or semester 2 (July - October). They are run on a flexible arrangement negotiated with each participating workplace: hours are organised in a way that is mutually acceptable to both the student and placement provider (eg. a single block or a combination of block and intermittent times).

(b) Preparation for WIL

At the program level, all stakeholders are appropriately prepared to ensure the effectiveness of the WIL experience. This includes:

- *Identifying the competencies and knowledge students require before undertaking the WIL experience and embedding appropriate preparation in the curriculum*

Students undertaking WIL require a certain level of specialist knowledge: while *BUSN3001* is open to all Business and Commerce students, entry to the course is competitive based on academic merit (minimum Grade Point Average) and a requirement that core courses and some courses from the major sequence of study have been completed. Embedded throughout the core curriculum are a set of transferable skills or competencies that are integrated within specific, core modules. These ‘generic’ skills, are clearly linked to Graduate Attributes. They include skills such as working as part of a team, developing working relationships, report writing, presentation skills, identifying workplace expectations, developing leadership and assertiveness skills and understanding corporate culture. Discipline specific knowledge is obtained from courses required as part of a major sequence of study.

- *Aligning expectations of all stakeholders through discussion and negotiation of agreements including the kinds of guidance available in the WIL experience*

Students are assigned an academic mentor and workplace supervisor: both provide advice and support. The course coordinator is the intermediary between student and workplace. The students undertake their activities largely unsupervised. Critical to the success of the course is the development of a shared vision for the experience among students, workplace supervisors and academics. With this in mind, to reduce the risk of disaffection due to unclear expectations from University and/or placement provider, an information sheet was distributed to all stakeholders setting out roles and responsibilities. However university staff did not visit the workplace.

- *Using assessment outcomes and stakeholder feedback to evaluate students’ experiences, inform curriculum change and improve WIL practice*

Feedback on the quality of the WIL course is an important aspect of continued curriculum improvement and development. Both formal and informal mechanisms are used to gather feedback. Formal feedback mechanisms involve semi-structured interviews with workplace supervisors and students. Informal feedback includes observations of student enthusiasm and engagement and employers’ willingness to continue an association with the University.

(c) Assessment

At the program level, there is an academically sound approach to assessing student learning outcomes with:

- *Identification of defined learning objectives that are codifiable, schemable, observable and those which require more subjective assessment regimes*

Learning objectives are identified by the academics in each discipline area. Projects that meet these learning objectives are then sourced and assigned to students. The course is project-based in the belief that the best placements occur when students have something specific to do (Patrick *et al.*, 2008, p.15). Project-based work retains its academic emphasis, while exposing the students to workplace environments and interactions. Projects can also be used to highlight the relevance of the degree to the particular industry.

Although the students made a contribution to the workplace, the central focus of the course was on university level learning: grades were awarded based on written accounts of projects and evaluations of workplace experiences, not the time spent in the workplace or amount of work accomplished. Assessment was made up of four components: (1) a project proposal (prepared in consultation with employer and academic); (2) a reflective essay documenting personal experiences and critical reflections on the placement; (3) a presentation of the research project to fellow students, academics in the discipline area and employer representatives and (4) a final project research report in which students related their project to broader theoretical contexts. Assessment of student learning outcomes was difficult as students were placed in a wide range of business settings and contexts, resulting in varied learning experiences and outcomes. Guidelines were developed for grading student performance: learning outcomes for each discipline were identified and linked with assessment methods. To ensure consistency, major assessment items were marked by an academic from the specific discipline area not involved in student mentoring.

- *Assessment protocols developed in collaboration with the employer*

A review of graduate employability skills (Precision Consultancy, 2007) found that "... a well-conducted WIL program will involve supervision by the academic and the workplace. WIL is a tripartite agreement and all parties need a clear understanding of what is to be assessed, by whom and how" (p.40). With this in mind, course objectives and assessment methods are distributed to all employers and academic mentors at the start of the project. However employer feedback has no direct role in the assessment process.

- *An appropriate compromise being negotiated between employer needs (eg for brevity), university needs (eg. for assuring quality learning) and student needs (eg. for career development).*

Workplace projects are designed to provide value to employers as well as to students. The major assessment item, the final project research report, serves a number of purposes: (a) it allows students to demonstrate their learning (for assessment purposes); (b) it can be used by students to illustrate their workplace 'problem solving' skills to potential employers; and (c) the employer, receives the benefit of the research undertaken by the student for the report (a copy of the final report is given to the employer).

Evaluation of the Course by students and workplace supervisors

BUSN3001 was offered for the first time in semester 1, 2010. Fifteen students completed the course. At the end of the semester, the course was appraised by analysing:

Student reflective essays

At the end of the semester, all students submitted a reflective essay on their workplace experiences. Their instructions were 'to write an essay that describes, and critically reflects on, your placement experience, and on what you believe to be your own strengths and weaknesses'.

Semi-structured interviews with students

A semi-structured questionnaire (recorded and transcribed) was used to evaluate the students' perceptions of the effectiveness of this curriculum initiative in providing them with the experience of putting the theory of their *discipline* major into practice in a workplace setting. Students were provided with opportunities to suggest changes to the course to better facilitate their transition from an academic to business setting. They were encouraged to draw on the realities of their 10-12 weeks in the workplace to inform their appraisal.

Semi-structured interviews with workplace supervisors

Phone interviews were used to obtain feedback from workplace supervisors. They were given the opportunity to comment on the best aspects of the course and how the course could be improved.

Student reflections on experiences

The common themes to emerge from student reflections on experiences, as expressed in their reflective essays and semi-structured interviews, are summarised in the following section.

After completing the workplace project, students reported many *benefits*:

- increased confidence, both in applying discipline knowledge to their project and in their other courses ("Not only was I able to have a greater understanding of marketing, but I was able to use this understanding and apply it to all of my courses. I began to speak up in class, state my opinion whether I was right or wrong. In return by throwing myself out there I was able to get more in return. My knowledge increased, my confidence increased and before I know it I was having hour long conversations with lecturers about marketing and marketing concepts").
- improved communication skills ("you have to communicate not only with your mentor, but with your co-workers").
- acquisition of practical experience in their discipline ("Very fulfilling course that provided me with workplace experience and practical knowledge that will be used in the future"; the project "did open my mind"; "relating the experience to your discipline major is very useful").
- satisfaction from working independently ("working independently I developed both personally and professionally – I could set goals and then meet those goals in the short-term").
- increased knowledge in the discipline area and acquisition of new skills ("I developed a lot of skills that I wouldn't have developed if I hadn't participated in the work placement").
- identification of gaps in their knowledge ("BUSN3001 provided me with the opportunity to test my knowledge and identify any knowledge gaps that I had").
- assistance in identifying the type of work they wish to undertake and the type of organisation they would like to work with upon graduation ("it was good to get out there and see what it's going to be like when you get out there in the real world when you graduate"; "it definitely gave me some direction...what sort of business I'd like to work for").

Students also reported a number of *challenges*:

- great difficulty in balancing workplace expectations (which were generally very broad) and the requirements of the academic mentor ("the biggest challenge ... was to try and bring together what the workplace wanted and what was expected academically").
- the course was more challenging and time-consuming than other courses at the same level.

Semi structured interviews with workplace supervisors

In the final weeks of the course, phone interviews were conducted with workplace supervisors from 12 firms. In response to the question “*What do you see as the main benefits of the course?*” supervisors identified:

Benefits to the student:

“opportunity for the student to apply theory in a practical way”

“student gets exposure to the corporate environment”

“student gets the opportunity to engage with an organisation and get their perspective on a topic”

Benefits to the organisation:

“potential to have the services of a motivated student”

assistance with an organisational issue (“ability to have a dedicated person to conduct in depth research/analysis into a not necessarily priority area”)

“organisation’s employees get fresh insights and outside opinions on topics”

maintaining a “positive continuing relationship with the university”

In response to the question “*What were the aspects of the course that could be improved?*” supervisors identified the following issues:

- even though the course is only available to final year credit-average students, some students “did not bring as much value to the organisation as expected”; “students participating in this course need a really strong academic background and need to be very highly motivated”.
- greater interaction between the workplace and the academic mentor would assist in gaining greater clarity regarding organisation expectations versus student expectations (eg. “it would have been useful to have a 3 way meeting with student, project provider and academic mentor”).
- more direction from the university to assist in bridging the gap between university studies and the workplace (“Student was supposed to apply theory to a practical piece of work, but student did not appear to have enough assistance from the university to do this”).

All but one firm participating in *BUSN3001* expressed a desire to be involved with the course in the future and every student reported that the course benefited them. For example, one student stated that the best aspect of the course was the opportunity “to apply the theories that you’ve learnt for the past two years practically because I hadn’t ever been able to do that before. And I think I was successful in applying those. I think it shows I’ve done well, the knowledge is in there – it hasn’t gone in one ear and out the other”. However WIL also presents several challenges for universities.

Key Issues to emerge from the first offering of the course

The preliminary findings from student and workplace supervisor feedback, suggest that some issues need to be addressed if WIL opportunities are to be expanded.

Development of effective assessment methods

Students obtain variable outcomes from the course as placements involve a broad range of environments, from small business to large corporations, making consistent assessment difficult. At present, assessment items are very much focussed on academic requirements: assessment is designed to encourage reflection and the integration of theory and practice. Formal feedback from workplace supervisors on student performance is not incorporated in the assessment. A redesign of the assessment to include such an evaluation may help inform the assessment process to try and recognise

differing student achievements in the workplace. Such feedback however would involve greater employer and academic staff commitment and interaction.

Options for low-achieving students

Consideration needs to be given as to how WIL opportunities can be offered to students of lower academic ability without disenfranchising local firms. *BUSN3001* is only available to final year credit average students. Nevertheless some firms expressed disappointment in the capabilities of students. One option could entail greater preparation for students prior to engaging with the workplace and more extensive academic mentoring during placement. Such a solution would have significant workload implications for academics. Another option may be to provide these students with a WIL experience within the university environment through workplace simulations or 'virtual' WIL.

Conflicting expectations

Conflicts between workplace supervisor's aspirations for the project and academic mentor's requirements for assessment purposes were identified as an issue by all students. Some students felt that they were caught 'in the middle' of the competing demands of the workplace and university. Interviewees suggested that visits to the workplace by academics would improve the course and help resolve the differing expectations. At present the course does not involve visits to the workplace by academics. To incorporate such meetings into the course structure would have significant resourcing/workload implications, yet such visits are important to avoid conflict between the workplace supervisor's expectations and the academic mentor's requirements. There is a clear need to work more closely with workplace partners to ensure there is a nexus between curriculum and the university and the requirements of the workplace.

Staff workload and time constraints

Most issues raised by students and workplace supervisors could be addressed by devoting more resources to WIL courses. Greater interaction between the three key players (academics, workplace supervisors and students) would be beneficial but very resource intensive. Visits to the workplace by academics and greater mentoring of each student would be very time consuming. In addition, staffing is required to build and maintain links with the business community; to identify suitable projects; and to co-ordinate the course. From the coordinator's experience, this first offering of *BUSN3001* has demonstrated that a WIL course requires far greater resourcing than a conventional 'on campus' course.

Conclusion

Early indications suggest that students successfully completing *BUSN3001* have contributed to the work environment; experienced the culture and ethics of the workplace and engaged with the professional identity of their discipline. WIL, when properly planned, ensures an easier student transition from study to employment and the development of skills and attributes that are difficult to foster with academic studies alone. However WIL also presents several challenges for universities which will need to be addressed if it is to be made available to a greater number of students. The key issues being the need to develop effective assessment methods, conflicting expectations amongst stakeholders, increased workload for staff and resultant resourcing issues for the university and the challenge of making WIL available to low achieving students without disenfranchising local firms.

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