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Work Integrated Learning (WIL): Responding to Challenges

'Tools of trade': Supporting consistency in processes related to work-integrated learning (WIL)

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This paper reports on an inter-professional collaboration undertaken to improve the WIL experience for students, industry stakeholders, and academics. An interdisciplinary project was undertaken in a small metropolitan university in Australia to address issues identified in the processes related to WIL for students of the health-related professions. Outcomes of the project include the development of a generic tool or guide to support improvement in the preparation for, ongoing support during, and assessment of WIL across the disciplines. While further trialing of the tool is necessary to measure benefits across the disciplines and professions, initial results are positive. The tool is now providing an important means of optimizing the outcomes of the WIL experience for all stakeholders. This, in turn, demonstrates the benefits of inter-professional and interdisciplinary cooperation for those seeking to facilitate the best possible WIL experience for students, industry representatives, and academics alike. (*Asia-Pacific Journal of Cooperative Education, 2010, 11(3), 115-124)*

Key Words: assessment, consistency, graduate attributes, work-integrated learning, interdisciplinary, inter-professional

INTRODUCTION

Work-integrated learning (WIL) provides students with the opportunity to apply knowledge and develop skills in an immediate, relevant, and authentic setting (Gamble, Patrick, & Peach, 2010). For the practice-based professions such as health, education, applied science and social science, WIL is an essential component of the clinical or field training of students. It enables students to practice and consolidate discipline-specific skills and knowledge, and facilitates the development of generic skills or the graduate attributes (GA), including an ability to communicate effectively (Bryans & Smith, 2000). Additionally, WIL enhances career-related outcomes for students, such as a more effective transitioning from the academy into the workforce (Abeysekera, 2006; McIlveen & Pensiero, 2008). Finally, WIL also has benefits for university and industry stakeholders, by promoting the integration of current theory and practice (Gamble et al., 2010).

Although WIL covers a broad range of learning activities, with differences evident from workplace to workplace, there are a number of similarities or overlapping features in the way the process of WIL is applied across the practice-based professions (Gibson et al., 2006). For example, students are placed directly into the work environment where they are supervised as they practice, with achievement of positive outcomes requiring the close cooperation of students, industry supervisors, and academics. It is these overlapping features

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that suggest the potential to improve the processes related to WIL through the sharing of information between the professions, using the variety of experiences to problem solve common issues.

This paper reports upon an inter-professional collaboration undertaken to improve the WIL experience for students, industry stakeholders, and academics. An interdisciplinary project was undertaken in a small metropolitan university in Australia to address issues identified in the process of WIL for students of the health-related professions. Outcomes of the project include the development of a generic mapping tool to support improvement in the preparation for, ongoing support during, and assessment of WIL. While further trialing of the tool is necessary to measure benefits across the academy, initial results are positive. The tool is now providing an important means by which the outcomes of the WIL experience can be optimized for all stakeholders. This, in turn, demonstrates the benefits of inter-professional and interdisciplinary cooperation for those seeking to facilitate the best possible WIL experience for students, industry representatives, and academics alike.

BACKGROUND TO PROJECT

The University of Canberra, Australia, is a small metropolitan university located in the Australian Capital Territory (ACT). The youngest and smallest of the Australian jurisdictions, the ACT was established in the 1920s on 2,400 square kilometers of land to house the Commonwealth government and associated departments and services. Today, the ACT boasts some 355,000 people and has a number of unique demographical characteristics – for example, the ACT population has the highest average income and level of education of all the Australian states and territories (ABS, 2009). These demographics pose particular challenges for those providing tertiary education in the locality, including a need to meet the higher expectations that are often placed by the population upon the services with which they are provided.

The Faculty of Health at the University of Canberra comprises the disciplines of nursing and midwifery, nutrition and dietetics, pharmacy, physiotherapy, psychology, and sport studies. Each of these disciplines has distinct characteristics, including its own set of workplace skills that express the specialized knowledge and practice of the discipline or profession. Additionally, each of the disciplines is framed by different workplace contexts, professional registration requirements and, as a consequence, curricula developed by the academy. On the other hand, there are many similarities between the health disciplines. For example, students from across the Faculty are required to undertake clinical or field placements in a health-related environment as a means of achieving the learning outcomes of their courses.

Prior to the implementation of the WIL project, which is the focus of this paper, informal feedback had been received by academics across the Faculty from students and industry representatives about WIL-related issues. These issues suggested the need for a focused development of the processes guiding the WIL experience. For example, many stakeholders indicated a shared desire to improve the assessment of learning of both the discipline-specific skills and GA by students in the workplace. In particular, the feedback suggested a need to support students to effectively communicate, problem-solve, cooperate with others, find information, commit to life-long learning, and exhibit professional and ethical behaviors.

In response to this feedback, a review of the relevant literature was undertaken. Findings were substantial, and included identification of the quite different expectations of WIL of

students and workplace supervisors (Cassidy, 2009; Ernstzen, Bitzer, & Grimmer-Sommers, 2009); inconsistent processes of communication across all areas and contexts (Piascik, & Bird, 2008); and the often haphazard nature of assessment, with common questions raised about disparate understandings of competence or proficiency and how these understandings influence the reliability and validity of assessments (Cassidy, 2009; Farris, Demb, Janke, Kelley, & Scott, 2009). Also significant were the many unanswered questions in the literature about the learning and assessment of the GA by students in the workplace.

Bowden, Hart, King, Trigwell, and Watts (2000) describe GA as the skills, qualities, attitudes, abilities and understandings beyond disciplinary-specific knowledge that are applicable across a range of contexts, and developed by all graduates during their time at university as part of their learning. Likewise, Bryans and Smith (2000) view the GA as the skills that enable the student to work efficiently and effectively in the workplace, and which can be transferred from one work situation to another. Such attributes include oralcy, literacy, and computer literacy; communication and interpersonal skills; time-management skills; motivation and a positive attitude – attributes valued by the employer but not often made explicit in the academic curriculum. Indeed, Barrie (2004) further distinguishes between the practice-based or clinical skills and GA, describing the latter as more global in conceptualization.

It is perhaps for this reason that 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 interaction. In short, the GA are a function of personal or social interaction, rather than the possession of individual skills that are practiced in isolation. This position is supported by Billet (2001), who sees WIL as a learning experience where knowing, learning and doing is achieved on all levels through ongoing and reciprocal processes that involve the student, industry stakeholders, and academics or clinical teachers. Likewise, Ingham and Ingham (2010) suggest that an individual will only ever utilize the GA effectively when working with mutually supportive team members. This raises a number of questions, including those related to the ways and means by which academics and industry stakeholders can facilitate or provide the reciprocal processes required to optimize team-work for students.

This led to the decision by the project team to examine the processes involved. It was anticipated that this examination would include consideration of the expectations of WIL expressed by students and industry representatives; the mechanisms by which all stakeholders communicated; and the means by which the assessment of learning was achieved in the workplace. The project, then, was multifaceted in its scope, yet at the same time focused upon achieving tangible improvements in quite specific areas of need.

AIMS AND METHODS

The main aim of the project was to develop a framework or guide to enable sustained improvement in the processes related to WIL for students. It was proposed that, ideally, this framework or guide would consider mechanisms for industry and academics to feed-forward to students – that is, to prepare, inform, and educate the student prior to their entry into the workplace; and enable workplace and academic supervisors to feed back observations and other information to students during and after the placement. Further, it was proposed that the project would provide a forum to develop interdisciplinary and inter-professional engagement, collaboration, and cross-fertilization; challenge traditional

understandings of WIL across the Faculty; develop and cement relationships with industry partners; and promote a common approach to WIL.

The project utilized a mix of methods to obtain data, both qualitative and quantitative in approach. It was viewed as low risk ethically, and approval was obtained from the relevant Research Ethics Committee.

Qualitative data was gathered in two ways, with the research team determining that a two-pronged approach would assist in identifying local issues from various sources. Initially, audio-recordings were made of the discussion undertaken by seven focus groups, including one student group comprising four current students and graduates; an academic group comprising four academics; and five groups of industry representatives, twelve participants in total. These audio-recordings were transcribed and analyzed thematically.

The second part to the qualitative analysis likewise involved a thematic examination of discussions, with these recorded through detailed note-taking at bi-monthly meetings of the Project Advisory Group (PAG). The PAG comprised representatives of current health students, recent graduates, academics and industry representatives. While numbers at each of the meetings fluctuated, depending upon individual availability, overall attendance included some five students, eight academics, and six industry representatives.

Quantitative data was generated by the comprehensive mapping of information provided by the academy to students and industry stakeholders. This mapping exercise included a systematic assessment of documentation provided by the academy to students and industry stakeholders, and statistical analysis of the findings. Analysis allowed identification of patterns of communication.

FINDINGS

Qualitative Data

A fertile range of qualitative data was generated through the discussions undertaken by members of the PAG and the focus groups. Themes generated by academic, industry, and student groups reflected findings related to WIL that had been identified in the literature. For example, all participants expressed concerns about the assessment processes and inter-rater reliability. Industry stakeholders went on to discuss the challenges involved in supervising and supporting students who exhibited attitudes that were viewed as inappropriate for the workplace environment, or who had apparent difficulties in demonstrating the GA. Students described a lack of understanding of, clarity around, or consistency in processes and practices related to clinical or field placements; expressed feelings of confusion and frustration with the lack of standardization within each of the disciplines; and, finally, noted that this situation impacted detrimentally upon their learning.

Quantitative data

To assist with the examination of WIL-related processes, an analysis was undertaken of associated information provided to student and industry representatives across the Faculty. This included both interdisciplinary and discipline-specific information. A mapping tool was developed, based on findings of the literature review and the feedback provided by the PAG. The tool itself comprised four major criteria: preparing the student for the workplace, expectations of workplace learning, assessment practices, and support mechanisms in the workplace. These four criteria in turn comprised 23 subsets to enable optimal measurement

of the information provided to students prior to commencing their clinical or field placement. The tool was trialed and revised prior to formal utilization – then further refined according to feedback from the auditor and analyst, and PAG. The questions utilized in the audit required Yes/No answers only, to enable identification of the information in the documentation, or otherwise. For the purposes of this project, which was a preliminary investigation only, the quality of the information provided was not assessed.

Overall results of the mapping exercise demonstrated concordance with the findings generated by the PAG and focus group discussions, and exposed inconsistent processes. For example, after scoring each of the Unit Outlines for concordance, then using a weighted score to factor for unequal sample size, the Disciplines of Nursing and Midwifery were shown to have the greatest concordance (see Figure 1). However, there was no significant difference ($p>0.5$) in concordance across the disciplines if Sport Studies, which scored much lower than the other disciplines, was excluded. One possible reason for the higher concordance scores with Pharmacy, Nursing, Midwifery, Psychology, Nutrition and Dietetics and Physiotherapy may be their longer history with developing WIL processes. Even so, with the highest percentage of concordance of just over 50 percent, the need for a review of the information provided by all disciplines across the Faculty was clear.

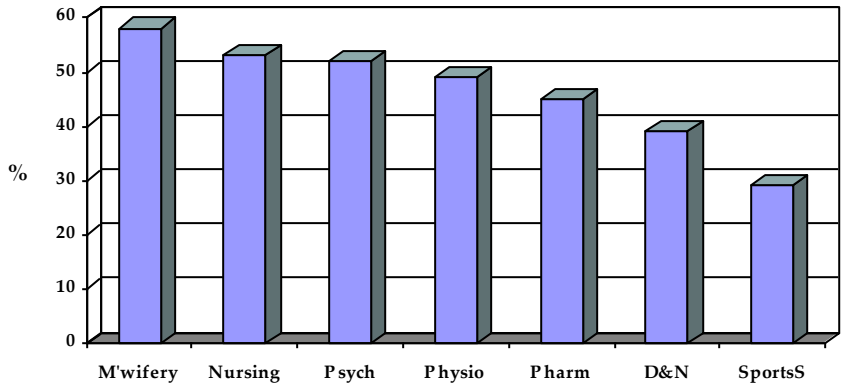

FIGURE 1:
Level of concordance (%) in WIL Unit Outlines across the disciplines

A further breakdown of the results showed that all documentation referred students to the relevant online student learning site, described the time lines for assessment, and articulated processes that were to be followed if students under-performed. However, information related to the process of WIL assessment was inconsistent, within and across disciplines. Likewise, the inclusion of explanations of the formative and summative assessment scored comparatively low. There was no information in the documentation about industry expectations for the students, nor how WIL practices for students are benchmarked against other students, courses, faculties, or tertiary education providers. Perhaps of most concern was that, while the information provided in the documents emphasized the importance of acquiring knowledge and skills, it tended to skim over the importance of developing appropriate workplace attitudes. Further, there was scant information provided about the

support for students that was available in the workplace, and the requirements of the workplace to be met by the students.

Discussion between project team members and the auditor identified the limitations of the mapping tool and its use in the project – in short, while information was included in some documentation, the quality of that information was poor. As such, it had the potential to add to the confusion reported by some students. For this reason, it was determined that future use of the mapping tool should include an audit of the quality of information provided. Similarly, it was recommended that the process of examining documentation should in future include at least two auditors, to allow for cross-checking, address any oversights in the process, and facilitate greater quality in the findings.

A number of omissions were also identified in the mapping tool itself. For this reason, it was subjected to further refinement, with an additional four sub-criteria added to the tool related to preparation, assessment and support mechanisms. The final Generic Mapping Tool/ Guide is provided in Appendix A, and may be used as either a means by which current information can be audited or a guide to develop and provide future information related to WIL for students.

DISCUSSION

Perhaps of most interest was the finding that each of the disciplines, across the Faculty, had placed more emphasis upon the processes or tasks that students are required to complete or fulfill prior to commencing a clinical or field placement (e.g. police checks, immunizations), than upon the actual process of learning and assessment once the student had commenced that placement. In short, analysis identified that the Faculty had been privileging information about bureaucratic processes, over information about learning. In particular, there was only very limited material provided about the GA, their importance, or how these skills could be fostered or developed by students and workplace supervisors.

The primary purpose of WIL is to provide students with the opportunity to apply knowledge; develop skills, both the discipline-specific and GA; and enable the integration of theory with practice (Gamble et al., 2010). An important focus for the academic and workplace supervisor, then, is to support this learning – with the more bureaucratic requirements associated with entry into the work environment, while important, taking a less prominent place. The Faculty WIL project highlighted the need for academic and workplace supervisors to re-focus upon supporting the actual learning process for students undertaking WIL, as against the tasks that needed to be completed to achieve the placement itself. This renewal of focus includes consideration of how students can be supported to develop the practical skills that distinguish the profession; and also skills in oralcy, literacy, computer literacy, team work, time-management skills, and maintaining a positive attitude. For example, how can information best be used to by academics to support student and industry stakeholders? More specifically, if students are not informed about industry expectations, how will be able to meet them?

Leading on from this, project findings also enabled the development of recommendations for change across the Faculty to address issues around inconsistency in the provision of information. These recommendations included the development of consistent, comprehensive, written information to stakeholders of the student, industry, and academic bodies, both paper and web-based; and the provision of preparatory workshops or

orientation sessions to all students prior to undertaking WIL. The Generic Mapping Tool/ Guide provided in Table 1 formed the centerpiece of these recommendations, as it provided a means for assuring the type of information supplied to students. It was decided that implementation of the recommendations would enable greater emphasis to be placed on learning in the workplace, together with ways and means of meeting industry expectations.

Perhaps of equal benefit is the evidence provided by the project to support the value of interdisciplinary and inter-professional co-operation. Stone (2010) identifies the benefits of inter-professional learning and collaboration in the health context, noting improvements in patient safety, worker satisfaction, and health service efficiency. In the context of the academy, the advantages of such collaboration were demonstrated through the collective development of Faculty-wide recommendations to enable sustained improvement in student satisfaction with and outcomes of WIL. Firstly, the PAG provided a forum for interdisciplinary and inter-professional co-operation and cross-fertilization – the sharing of current knowledge, practices, ideas, and common concerns, enabled participants to share expertise, and adapt this within their specialties. Secondly, the project itself enabled academics to critically analyze their own work, the work of colleagues, and also the work being carried out by other disciplines. Undergoing such peer review has the potential to be personally confronting – nevertheless, the project enabled such a review to be conducted 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 to academics in other institutions.

Following on from this project, further research is recommended by other faculties and institutions using the Generic Mapping Tool/ Guide. This could include further refinement of the tool, to ensure the comprehensive provision of information by educators to students and industry stakeholders. Additionally, a repeat utilization of the tool by the originating faculty would serve to identify compliance to the recommendations that were made as part of the project. Focus groups could again be utilized to measure improvement in processes related to WIL.

CONCLUSION

This paper reports findings of a project that aimed to improve the experience of WIL for students, industry representatives and academics, across the health disciplines; and facilitate the learning of practice-based skills and the GA. Results of the project identified a number of inconsistencies in WIL-related processes, including deficits in the information provided to student and industry representatives. In particular, it was found that academics had been privileging bureaucratic processes over learning and assessment processes in the WIL experience. One way in which these issues were addressed was the development of a Generic Mapping Tool/ Guide to frame the provision of information to students, industry stakeholders, and academics; and promote consistency in associated processes.

Another outcome of the project was the enhancement of communication between the stakeholders, leading to the development and cementing of relationships between the academics, industry representatives, and students. In particular, the project provided an excellent example of the power of interdisciplinary and inter-professional co-operation. By working together and openly sharing information, all those involved were able to build upon their knowledge base to benefit the academy as a whole.

Finally, the project enabled the development of recommendations for a Faculty-wide framework aimed at standardizing and improving WIL assessment processes. The Generic Mapping Tool/ Guide is applicable across the disciplines because it encompasses the essence of what is required to support consistent WIL processes across the professions.

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APPENDIX A

Generic Mapping Tool / Guide for WIL

1. **Information to Prepare for Work Placement:**
   - 1.1. Reference to Faculty Clinical/Field Placement Handbook
   - 1.2. Reference to discipline-specific Clinical/Field Placement Handbook
   - 1.3. Reference to discipline-specific online student site(s) for clinical/field placements
   - 1.4. Reference to preparatory workshop or orientation sessions for clinical/field placements
   - 1.5. Provision of pre-placement guidelines
   - 1.6. Reference to explanation of workplace requirements, general and specific, including role of workplace supervisor
   - 1.7. Reference to explanation of academic expectations in relation to clinical/field placement
   - 1.8. Explanation of process to be followed for dispute resolution
2. **Expectations of Workplace Learning**
   - 2.1. Explanation of knowledge to be learned/demonstrated in the clinical/field placement
   - 2.2. Explanation of skills to be learned/demonstrated for the clinical/field placement
   - 2.3. Explanation of the attitudes to be learned/demonstrated for the clinical/field placement
   - 2.4. Explanation of the GA to be learned/demonstrated for the clinical/field placement
   - 2.5. Explanation of the academics' and workplace supervisor's role and expectations during the clinical/field placement
3. **Assessment Practices**
   - 3.1. Explanation of WIL assessment process, including requirements/expectations around learning of knowledge, skills, attitudes, and GA
   - 3.2. Explanation of formative (or equivalent) WIL assessment of knowledge, skills, attitudes, and GA
   - 3.3. Explanation of summative (or equivalent) WIL assessment of knowledge, skills, attitudes, and GA
   - 3.4. Explanation of the WIL assessment tools that will be utilized, including the assessment criteria
   - 3.5. Identification of who will be undertaking the assessment
   - 3.6. Indication of the time-line of the assessment
   - 3.7. Explanation of how the assessment process is benchmarked against other Universities
4. **Support Mechanisms in the Workplace**
   - 4.1. Reference to a relevant self-directed learning package to support students in WIL

4.2. Provision of access to workplace supervisors and other industry representations to student learning sites (online) to enable clear and transparent exchange of information

4.3. Explanation of supports available for students in the workplace

4.4. Explanation of communication processes to be followed by student to 'feedforward' information, as well as give and receive feedback

4.5. Explanation of communication processes to be followed by workplace supervisor to 'feedforward' information, as well as give and receive feedback

4.6. Explanation of communication processes to be followed by academic to 'feedforward' information, as well as give and receive feedback

4.7. Explanation of processes that will be followed if student is 'underperforming'

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ABOUT THE JOURNAL

The Asia-Pacific Journal of Cooperative education (APJCE) arose from a desire to produce an international forum for discussion of cooperative education, or work integrated learning (WIL), issues for practitioners in the Asia-Pacific region and is intended to provide a mechanism for the dissemination of research, best practice and innovation in work-integrated learning. The journal maintains close links to the biennial Asia-Pacific regional conferences conducted by the World Association for Cooperative Education. In recognition of international trends in information technology, APJCE is produced solely in electronic form. Published papers are available as PDF files from the website, and manuscript submission, reviewing and publication is electronically based. In 2010, Australian Research Council (ARC), which administers the Excellence in Research (ERA) ranking system, awarded APJCE a 'B' ERA ranking (top 10-20%).

Cooperative education/WIL in the journal is taken to be work-based learning in which the time spent in the workplace forms an integrated part of an academic program of study. More specifically, cooperative education/WIL can be described as a strategy of applied learning which is a structured program, developed and supervised either by an educational institution in collaboration with an employer or industry grouping, or by an employer or industry grouping in collaboration with an educational institution. An essential feature is that relevant, productive work is conducted as an integral part of a student's regular program, and the final assessment contains a work-based component. Cooperative education/WIL programs are commonly highly structured and possess formal (academic and employer) supervision and assessment. The work is productive, in that the student undertakes meaningful work that has economic value or definable benefit to the employer. The work should have clear linkages with, or add to, the knowledge and skill base of the academic program.

INSTRUCTIONS FOR CONTRIBUTORS

The editorial board welcomes contributions from authors with an interest in cooperative education/WIL. Manuscripts should comprise reports of relevant research, or essays that discuss innovative programs, reviews of literature, or other matters of interest to researchers or practitioners. Manuscripts should be written in a formal, scholarly manner and avoid the use of sexist or other terminology that reinforces stereotypes. The excessive use of abbreviations and acronyms should be avoided. All manuscripts are reviewed by two members of the editorial board. APJCE is produced in web-only form and published articles are available as PDF files accessible from the website http://www.apjce.org.

Research reports should contain; an introduction that describes relevant literature and sets the context of the inquiry, a description and justification for the methodology employed, a description of the research findings-tabulated as appropriate, a discussion of the importance of the findings including their significance for practitioners, and a conclusion preferably incorporating suggestions for further research. Essays should contain a clear statement of the topic or issue under discussion, reference to, and discussion of, relevant literature, and a discussion of the importance of the topic for other researchers and practitioners. The final manuscript for both research reports and essay articles should include an abstract (word limit 300 words), and a list of keywords, one of which should be the national context for the study.

Manuscripts and cover sheets (available from the website) should be forwarded electronically to the Editor-in-Chief. In order to ensure integrity of the review process authors' names should not appear on manuscripts. Manuscripts should be between 3,000 and 5,000 words, include pagination, be double-spaced with ample margins in times new-roman 12-point font and follow the style of the Publication Manual of the American Psychological Association in citations, referencing, tables and figures (see also, http://www.apa.org/journals/faq.html). The intended location of figures and diagrams, provided separately as high-quality files (e.g., JPG, TIFF or PICT), should be indicated in the manuscript. Figure and table captions, listed on a separate page at the end of the document, should be clear and concise and be understood without reference to the text.

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