Assessing student outcomes in fieldwork placements: An overview of current practice

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Arguably, successful WIL activities contribute to a sustainable workforce for the future economic growth and improvement of the Australian economy. While there is a growing abundance of literature on work-integrated learning, specifically, fieldwork, there is little on how this is assessed, the quality of the assessment process and ultimately, the outcomes for students.

The study explored the assessment strategy used in a selection of undergraduate subjects/units which incorporated a fieldwork component. All subjects employed multiple assessment points to verify student proficiency. Communication skills, discipline knowledge and professional skills were the Graduate Attributes most frequently assessed while international perspectives was not aligned to any assessment tasks. While partnerships with industry were highlighted as an essential element of a successful WIL experience, the majority of feedback to students was provided by academic staff. The research highlighted a diversity of approaches in pre- and post-placement activities to enable students to prepare for and reflect upon the placement experience. (*Asia-Pacific Journal of Cooperative Education, 2012, 13(4), 207-224*)

Keywords**: work-integrated learning; assessment; graduate attributes; feedback.

BACKGROUND

Higher education is perceived as the vehicle for ensuring an academically sound, skilled and productive work force. Arguably, best practice is achieved through establishing and maintaining partnerships between community and industry. The current transition into a regulated, standards-based framework where evidence is required to substantiate student outcomes will compel universities to provide verification of output. Institutions will be required to demonstrate *where* and *how* students acquire employability capabilities throughout their studies.

WIL is an umbrella term referring to an experience where students are exposed to *authentic* and *relevan*t contexts indicative of the workplace where they apply theory to practice (Council in Higher Education, 2011). The WIL agenda has emerged as a high priority for universities (Cooper, Orrell, & Bowden**,** 2010). It is regarded as a mechanism for addressing the requirement to embed employability skills into the student experience and provide accountability measures. WIL should not be perceived as a quick fix solution to national economic challenges and workforce inadequacies. However, it is an effective means of preparing graduates for the world of work and encompasses a range of experiences. The focus of this study is an element of WIL and refers to a work placement where students experience the real world of work, with real-time, in-situ educational experiences.

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Theory to practice

While there is clearly a need to educate students on the theoretical aspects of their intended profession, classroom-bound delivery limits the integration of theory and practice; a key element of developing work-readiness skills. The value of WIL was promoted by early educationalists such as Dewey in 1938. Hence, a number of theories underpin the structure of education in professional practice settings. For example, Piaget's developmental theory (1953) views learning as a social process involving the learner in free exploration within a given framework, whereas, Bruner (1961) promoted the discovery learning theory which is underpinned by the notion that it is best for learners to discover facts and relationships for themselves. Knowles, Elwood and Swanson (1978) posit that adults learn better when they see the relationship between the activity and the desired learning outcome, while Vygotsky (1978) argues that social interaction is preceded by the development of consciousness and that a learner's ability to solve problems can be limited and enhanced by a collaborator who scaffolds the learner's thinking and activities. Vygotsky identified the 'teachable moments' which, when capitalised upon, allow the learner to think further through, or more broadly about, the problem within the appropriate social environment. Kolb's (1984) theory of learning from experience proposed the existence of a four stage cyclical learning model. The four stages are thought to provide a holistic perspective combining experience, perception, cognition and behaviour. Bandura (1986) states that people learn from each other via observation, imitation and modelling. Lave and Wenger (1991) regard learning as unintentional and situated within authentic activity, context and culture, where social interaction and collaboration are essential components. Their theory advocates for learners to become involved in authentic learning activities with people involved in their discipline. Boud and Miller (1996) claim that most of the learning happens outside the classroom and believe learning is profoundly influenced by experience and the essence of problem solving is drawing from that experience. Wenger (1998) endorses the notion of communities of practice where novices typically move from the periphery of the community to the centre and become more actively engaged and eventually assume the role of expert.

Overall, the clear assumption is that WIL provides students with opportunities to experience professional life, with the notion that such an experience will promote knowledge development (Fry, Ketteridge & Marshall, 2005). During WIL education, students are expected to experience as well as understand the discipline-specific, contextually related ideas (Fry et al., 2005).

Assessment of students' WIL experience

The expectation that a university experience will include the application of theory in a practice-based setting has forced universities to rethink curriculum design and assessment practices (Cooper et al., 2010). The challenge is for universities to move from traditional curriculum design paradigms of isolated academic subjects to a more innovative approach that aligns the theoretical components of curriculum with the practical elements of professional workplaces. In doing so, it is expected that there will be a closer alignment between the academic curricula and the students' employability capabilities.

Given the notion that alignment of learning outcomes with experiences and assessment strategies and tasks is widely regarded as fundamental to sound pedagogic practice (Australian Learning and Teaching Council, 2011), the integration of academic content with professional practice ensures a holistic approach to the educative experience, ideally

culminating in work-ready graduates. Knight and Yorke (2004) and Cooper et al. (2010) view WIL as a highly complex activity with unpredictable outcomes due to the many variables that impact on student achievement in a practical setting. These authors highlight the importance of a specific assessment strategy to scaffold the learning experience and ensure 'coherence and progression' thereby maximising the likelihood of the ongoing development of employability capabilities. This idea is endorsed by Hodges (2011) who argues that this approach is critical for ensuring valid assessment approaches.

The distinguishing features of workplace learning situations are that they are inherently variable, unpredictable, sometimes brief, high risk learning events which are not replicable (Cooper, Orrell, & Bowden, 2003; Hodges, 2011). Hence, WIL presents challenges for the quality assurance of the assessment process (Yorke, 2011). Given the multi-dimensional nature of the process, the assessment of fieldwork presents ethical, organisational and educational dilemmas. Despite the value of work-based learning being promoted by educational theorists for many decades as outlined above, there has been little research on designing assessment of students' performance in practical settings (Hodges, 2011). The aim of this paper is to contribute to scholarly discussion about how best to assess students' learning.

Yorke (2011) describes assessment of fieldwork as comprising three broad elements:

1) actual workplace performance;
2) a record of the experience (diary or journal); and
3) a reflection on the work-based experience.

The assessment of students' performance requires observation of actual work as it takes place, whereas a record of attendance is an administrative task. Central to higher learning is Dewey's (1910) concept of encouraging reflective thinking as a means of developing thought: the learner's reflective thinking passes through all of the possible consequences of the elements in a problem and, in such a way, builds his or her knowledge. Dewey's postulation that learning occurs from actively solving meaningful problems explains the accumulation of experience and thus greater wisdom of experienced professionals. Thus, problem-solving theory is framed around the learner's organisation of thoughts and patterns learnt through problem-formulation, hypothesis development, and testing and reflecting on these elements. Dewey's work in 1910 is significant to WIL because of the need to incorporate a strong culture of reflection on practice, where students' preconceived ideas are checked against the reality of practice. Reflection on the WIL experience is integral to deeply embedded learning and the ability to apply skills in a range of contexts (Groenewald, Drysdale, Chiupka, & Johnston, 2011; Orrell, 2011). Reflection requires the promotion of feedback and testing of insights. It can be argued that the frequency, the timing of the observations of students' work, along with the feedback given, has a significant bearing on learning. Feedback ought to provide students with information on their actual performance relative to the intended goals of the educational event (Titchen & Binnie, 1995).

Assessment processes and the provision of fieldwork or clinical practice opportunities for students are topical issues within higher education institutions. Learning in any situation requires that the learner receives meaningful and useful feedback (Race & Pickford, 2007). With the increase in accountability measures and mandated outcomes for universities (Bradley, Noonan, Nugent, & Scales, 2009) and the challenges associated with developing rigorous, fair and equitable assessment, the topic of assessing fieldwork placements has

gained prominence. While there is a growing abundance of literature on WIL, there is little on how this is assessed, the quality of the assessment process and ultimately, the outcomes for students and industry partners (Cooper et al., 2010).

Studies undertaken in the last decade show feedback is an aspect of clinical education that is highly regarded by students and is seen by them as an indication of the educational quality of the setting (Boendermaker, Ket, Dusman, Schuling, van der Vleuten, & Tan, 2002; Daelmans, Hoogenboom, Donker, Scherpbier, Stehouwer, & van der Vleuten, 2004; Kilminster & Jolly, 2000). Such feedback typically comes from supervisors, other staff and peers.

Undertaking research which provides evidence of assessment practices and explores the diversity of assessing students in a work-based activity is both timely and pertinent to the current climate. Similarly, a review of the Department of Education Employment and Workplace Relations website shows assessment, benchmarking and standards are high on the agenda for the university sector. This study spans two universities and 10 disciplines enabling a comparison of practices. The research explored assessment and feedback strategies in university subjects or courses with a *fieldwork or clinical practice* component.

RESEARCH QUESTIONS

The aim of the research was to identify the breadth and types of assessment tasks undertaken in a selection of undergraduate subjects/units which incorporated a fieldwork or clinical education component. The intention was to ascertain who assesses students and who provides feedback on their performance. A third element of the study involved examining the graduate attributes addressed through different assessment approaches.

A variety of disciplines from University of New South Wales and Curtin University in Western Australia were selected for the purposes of this study. Disciplines studied were occupational therapy, nursing, education, architecture, public health, pharmacy, marketing, exercise physiology, optometry and law.

The research questions were:

1. What is the diversity of assessment tasks applied to work placements across these disciplines?
2. What is the relationship between the different tasks and the graduate attributes expected by the universities?
3. Who assesses and provides feedback on students' performance?
4. How do the practices and approaches differ across disciplines?

RESEARCH DESIGN AND METHOD

This investigation combined a cross-sectional research design and a comparative approach. A range of both qualitative and quantitative data was sourced to maximise the reliability and validity of the results. The combination of the cross-sectional and comparative models enabled variation between unit/subject assessment patterns, diversity across institutions and comparison of approaches and practices to be quantified in a systematic manner. An ethics application was submitted to both universities and approved.

Sample of Data

Templates were developed to gather assessment profiles for each unit/subject. Assessment profiles included information about the type of assessment, the learning outcomes being assessed, the medium for the assessment (written or oral), the level of authenticity, principal assessor (teaching staff, industry representative or both), the purpose of the assessment (summative or formative), weighting of the assessment and the type of feedback mechanisms employed. Additional information was gathered pertaining to the pre-placement preparation students underwent and the debriefing approaches used post-placement. A document analysis of all unit/subject outlines was also undertaken. These documents provided detailed information about student expectations, activities and assessments.

Data Collection Methods

Assessment information and unit/subject outlines were collated through contact with the Unit/Subject Coordinator. A profile of the assessments in each subject was created using a matrix outlining the criteria with additional information provided by the Unit/Subject Coordinator. Interviews were conducted with Unit/Subject Coordinators to collect anecdotal data about pre-placement and post-placement student activities.

Data Analysis Techniques

Initial mapping of information from all Unit/Subject guides took place using an adaptation of the Curtin University course mapping template. This showed eight categories of assessment across the sample of Units/Subjects. These were case studies, reflection/portfolio, simulation, knowledge test, performance, oral presentations, written task, and industry-based case study.

- *Case Studies* research on cases: applying disciplinary knowledge in a professional context, roles, ethics, and responsibilities, systems, processes and lateral and higher order thinking, debates. Can be inter-professional or discipline specific.
- *Reflection/portfolio:* Reflection of work place experience and collection of evidence.
- *Simulation:* Institutional based assessment intended to replicate the workplace environment e.g., role play including Objective Structured Clinical Examinations (OSCE), peer and self-assessment.
- *Knowledge test:* Testing recall of facts such as online quizzes or multiple choice quizzes (MCQ).
- *Performance - real-time in situ:* Practical assessment of work place performance - detailed understanding of disciplinary systems, roles, ethics, and responsibilities, systems, processes and lateral thinking, proficiency in basic disciplinary skills, communication and core disciplinary knowledge.
- *Oral Presentations:* oral test - detailed understanding of disciplinary systems, roles, ethics, and responsibilities, systems, processes and lateral thinking.
- *Written task:* Essays or reports (other than case studies) higher order thinking.
- *Industry-based case study*: Investigation of actual work place scenarios.

The following categories were used to enable comparisons of who provided student feedback:

- Academic only;
- Academic and industry personnel;

- Industry only; and
- Academic and peer.

Subject outlines from Curtin University were mapped against Curtin University's Graduate Attributes. Separately, the University of New South Wales (UNSW) aligned with different attributes for each discipline. For convenience, the themes of the UNSW attributes were aligned with the Curtin University's Attributes. This enables a comparison of the assessment types against nine Graduate Attributes which were:

- Disciplinary Knowledge
- Thinking skills
- Information skills
- Communication
- Technology

- Lifelong learning
- International perspective
- Cultural understanding
- Professional skills

Interviews conducted with Unit/Subject coordinators were analysed manually to identify recurring themes. Understanding of the responses emerged from experience and by using a process of inductive and, later, deductive analysis to identify patterns and allow themes in the data to emerge (Charles & Mertler, 2002; Patton, 2002).

Diversity of assessments

Figure 1 illustrates the frequency and diversity of types of assessment used in each university and across both institutions. . The findings indicate the use of a reasonable spread of assessment types that are likely to examine the student skills from different perspectives at different points in the students' skill development. Assessment of student performance was the predominant method when adding the two institutions together. This can sometimes mean a supervisors' global report on the students' performance over time or it can mean students work with particular clients, customers or patients. It would be beneficial to have further studies into how many disciplines assess students' real-time, in-situ work and what elements of those interactions with stakeholders are assessed.

Written reflective diaries and written tasks were the second and third most popular form of assessment and these are both undertaken away from the in-situ events. It may be that best practice is evidenced by a balance of assessment that takes place in real-time with a reflective component undertaken later. However, this is the topic of future research and discussions.
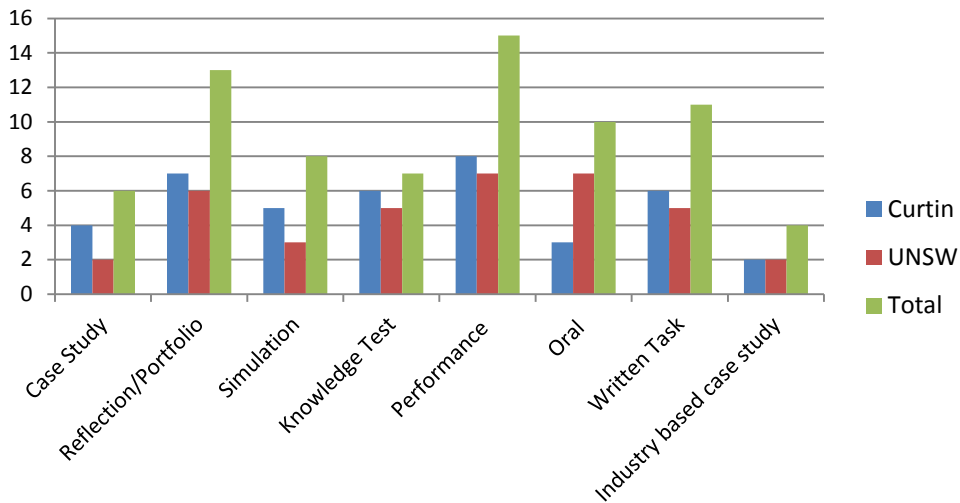
FIGURE 1. Frequency of assessment types for each institution and total frequency of assessment types

All subjects involved in this study employed multiple assessment points to verify student proficiency. Given the complexity and inherent challenges in assessing fieldwork, an evidence based approach with multiple assessment points is necessary to ensure consistency (Knight & Yorke, 2006). Assessment strategies employed are pivotal to the student experience and, according to Race and Pickford (2007), are what drives learning. While providing the opportunity for students to perform in the workplace is a valuable experience in itself, the assessment strategy is integral to ensuring optimal student outcomes. Yorke (2011) contests that assessment of work-engaged learning does not conform to traditional modes of assessment in higher education.

Relationship between the different tasks and the expected graduate attributes

Data collection allowed analysis of which attributes were assessed using portfolios, simulation and oral presentations. Figures 2, 3 and 4 provide a picture of the distribution of the Graduate Attributes assessed in the three of the assessment categories. The most frequently occurring attributes are discipline knowledge, communication and professional skills. Lifelong learning and thinking skills, skills considered prerequisite for employability (Moon, 2006) also appear frequently. Communicating how a graduate acquires the generic capabilities necessary for work place proficiency is crucial for the credibility of universities. According to Oliver (2011) "it is the heart of the enterprise in universities and institutions that confer qualifications" (p.3).

Perhaps the most notable exclusion is an international perspective which is not addressed at all in these assessment categories. This omission, coupled with the low frequency for 'cultural understanding,' raises concerns. Given that internationalization and the global economy are impacting on skills required for employability (Bourne, 2011), the curriculum needs to explicitly incorporate where and how such skills will be acquired. Bourne believes a higher education experience needs to prepare graduates for the dynamic environment in which they must survive and in order to achieve this, a reconceptualization of the curriculum

is required. The high percentage of international students graduating from Australian universities (20% in 2006 – 2007) accentuates this concern even further (Mahon, 2010).
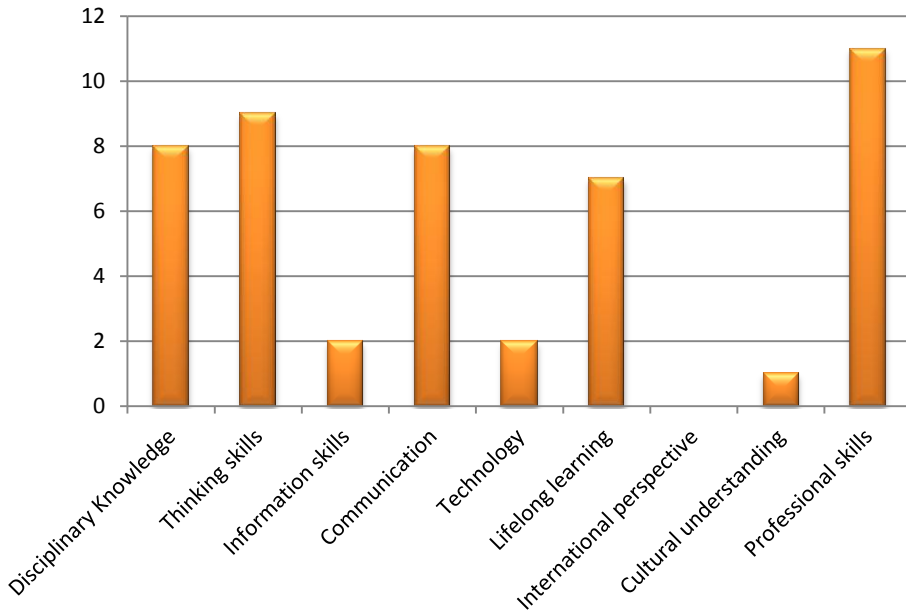

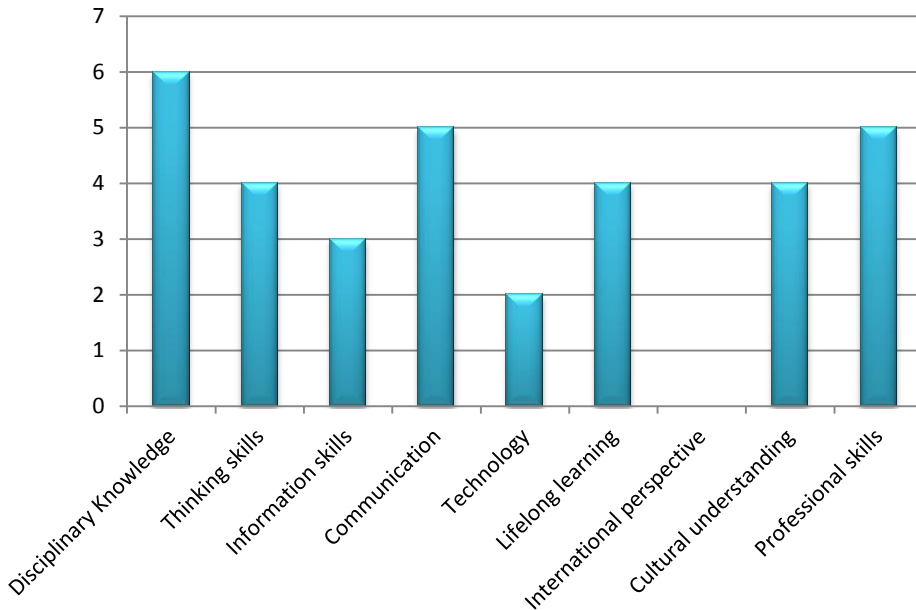FIGURE 2. Graduate Attributes assessed by portfolios

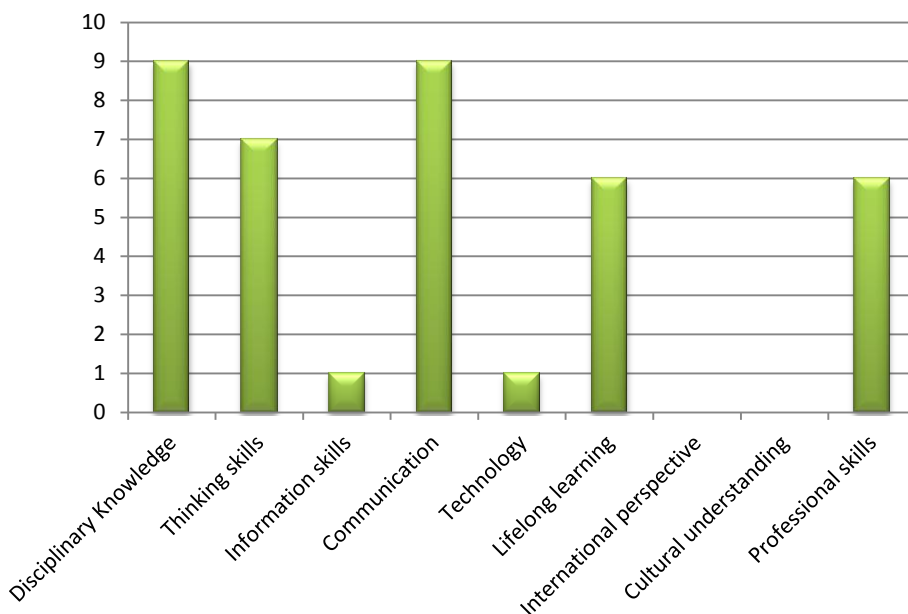FIGURE 3. Graduate Attributes assessed by simulation

FIGURE 4. Graduate Attributes assessed by oral presentation

Assessors

The experience and approach of the person providing the feedback is central to the effectiveness, relevance, value and impact of the assessment experience. Figure 5 provides a visual overview of who provides feedback on the student's performance during and after the assessment experience relating to the fieldwork activity. This graph demonstrates the total count for each category and a breakdown for the two institutions. Academic teaching staff provide feedback on *most* occasions, yet, they do not always supervise the student during WIL experience. This data highlights the level of industry engagement and the involvement of employer representation in the assessment process. The emphasis on feedback from academic staff is clearly visible in the graph. The aim of the latter was to explore their critical appreciation of professional systems, contextual understanding, lateral thinking, roles and ethics and responsibilities. In a small proportion of assessments, feedback is provided by both academic staff and industry personnel.

Interestingly, there are very few instances where peer feedback is included. The issues associated with peer assessment are well known (Dochy, Segers, & Sluijsmans, 1999; Speyer, Pilz, van der Kruis, & Brunings, 2011) and while there are many benefits, would possibly further complicate the multi-faceted nature of practice-based assessment if such assessment were summative. This information highlights the opportunity to engage industry more in the assessment process. The full benefits of WIL are reliant on the involvement of industry, and universities need to nurture strong partnerships with employers to ensure graduates have acquired knowledge with real world application (van Rooijen, 2011).
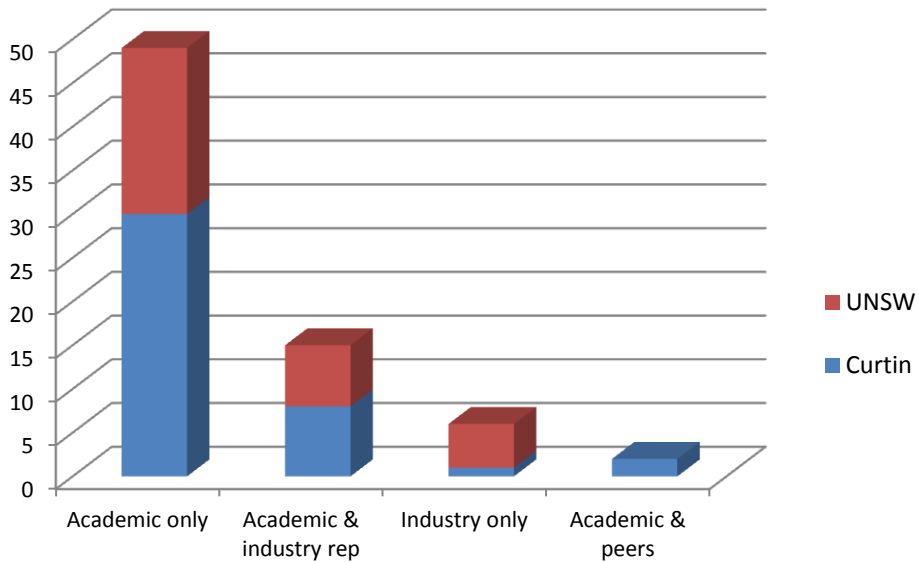
FIGURE 5. Responsibility for feedback

Disciplinary differences

Figure 6 and Figure 7 provide the assessment profile of health versus non-health subjects. Health disciplines tended to have a higher percentage of fieldwork as it is usually required to meet accreditation standards, and showed a greater use of assessment of students' performance and portfolio. Non-health disciplines showed a higher frequency of written tasks overall with industry-based case studies and oral performance. These are possibly employed as a mechanism for replicating workplace scenarios. It is reassuring to note that both disciplines utilise reflection as a means of promoting students' critical appraisal of their practical learning experiences and identification of where and how they might enhance their performance. Critical reflection is integral to nurturing lifelong learning as it assists students in identifying future learning needs (Hodges, 2011; Moon, 2006; van Rooijen, 2011).
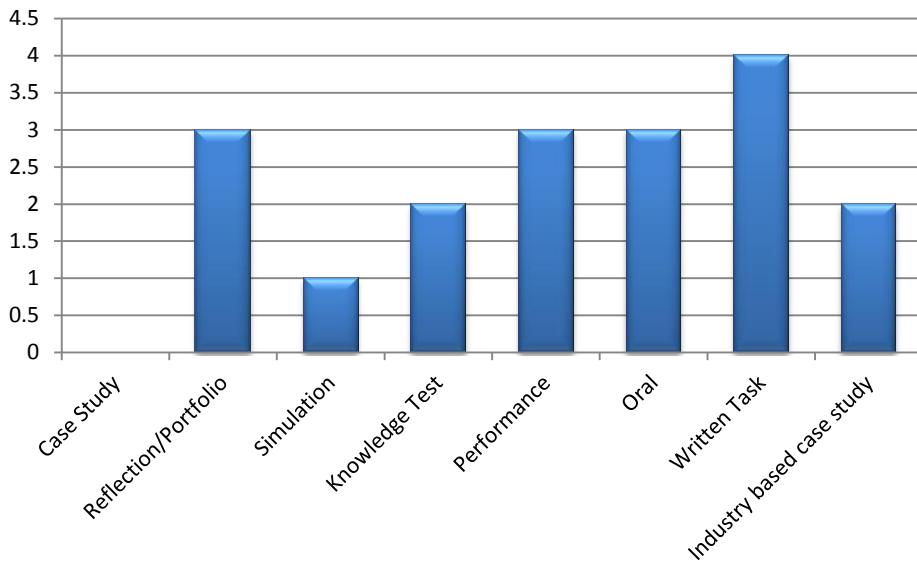
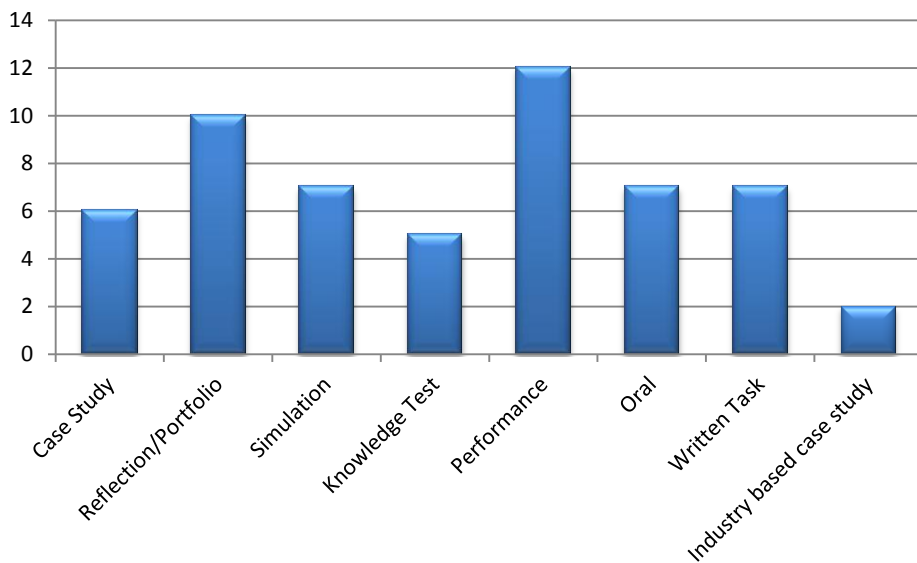FIGURE 6. Distribution of assessments in non-health disciplines

FIGURE 7. Distribution of assessments in health disciplines

Views of Unit/Subject Coordinators

The level of involvement of industry personnel in the assessment process varied considerably across disciplines, although all areas incorporated industry established professional standards into the marking criteria in an effort to meet industry requirements. Variation ranged from no involvement of industry representatives in the assessment process to an industry-based assessor making the final judgement on the proficiency levels of students.

Some disciplines established a partnership arrangement with employers through the provision of industry-based paid positions for staff employed at the work placement site to act as mentors and supervisors for the students. All Unit/Subject coordinators highlighted the importance of building a positive working relationship with industry and stressed the resource intensive process of maintaining such relationships. Interviewees were unanimous in emphasising the impact of a quality relationship on the overall fieldwork experience for the student. Several subject coordinators commented on the increasing complexity of providing work placements for students as enrolments increased. It had become logistically impossible for one area where a work-based project had been implemented as a compromise, as placing students at a work site had become too burdensome for employers.

A range of strategies was employed to ensure fairness, equity and transparency in the assessment process. The health disciplines work closely with industry-based assessors and provide workshops on campus. Most areas developed a matrix outlining developmental phases of criteria used to assess students' work place competencies, thereby increasing the likelihood of consistency in decision making in the assessment process. Support mechanisms for students ranged from a weekly meeting with a mentor to email contact with academic staff as required. Time and funding were identified as the biggest issues in providing sufficient support to students on a work placement.

Preparing students for a fieldwork placement ranged from no preparation to a series of sessions conducted over a four week period for students. The intensity of the preparation appeared to be dependent on industry requirements around suitably preparing students for the workplace. Similarly, the post-placement debriefing activities varied significantly. Several disciplines conducted formal sessions where students reflected on their experience and shared issues and challenges with other students and teaching staff. In other instances, there was no opportunity to debrief.

Work-based learning presents significant challenges for the quality assurance and validity of the assessment process (Yorke, 2011; Hodges 2011). Scaffolding the assessment points in a cohesive way maximises the value of each assessment experience and ensures feedback from preceding assessments inform future assessments, ultimately resulting in higher levels of skill attainment (O'Brien & Menzie, 2010) According to Hodges, formative assessment facilitates constructive feedback which assists the student's learning and consolidation of knowledge and skills.

The challenges of incorporating fieldwork into the student experience goes beyond design of the curricula and authentic assessment. Ideally, it requires a partnership approach to curriculum design, and extensive consultation and collaboration with all stakeholders. Engagement with industry to identify skills necessary for the work-based environment and determine relevant assessment criteria are essential for addressing requirements of a particular industry context (Hodges, 2011). Student backgrounds, experience and self-efficacy contribute to ultimate outcomes culminating in a high level of complexity.

CONCLUSION

Assessment of student performance in the workplace was the predominant method for determining student proficiency. This can sometimes mean the practice-based supervisor provides a global report on the students' performance over time or it can mean students work with particular clients, customers or patients. Written reflective diaries and written

tasks, undertaken away from the in-situ events, were the second and third most popular form of assessment.

Health disciplines tended to have a higher percentage of fieldwork as it is usually required to meet accreditation standards. However, the non-health disciplines showed a higher frequency of industry-based case studies, possibly as a mechanism for replicating workplace scenarios. It is reassuring to note that both disciplines utilise reflection as a means of promoting students critical appraisal of practical learning experiences and identifying where and how they might enhance their performance.

The most common attributes are discipline knowledge, communication and professional skills, followed by thinking skills. The most notable exclusion is an international perspective which is not addressed at all in these assessment categories. This omission, coupled with the low frequency for 'cultural understanding,' raises concerns.

Academic teaching staff provide feedback on *most* occasions, yet, they are not always the supervisors of students' actual WIL experience. In a small proportion of assessments, feedback is provided by both academic staff and industry personnel. There was very little evidence of opportunities for peers to give feedback.

This study is intended to initiate research in this area and provide the foundation for further investigation. Ongoing investigation could incorporate delving deeper into the assessment process by scrutinising the assessment criteria for the assessment tasks by which students' competencies are determined. Another interesting element to explore would be the spread of results across subjects with diverse assessment profiles and whether students are graded with a percentage mark or a pass / fail grade and the implications of each. Streamlining this process and disseminating the information would enable staff to benchmark approaches and share ideas and expertise, resulting in improved strategies across the sector.

Including WIL experiences in the curriculum is a resource intensive exercise with many inherent challenges. Assessing WIL is a multidimensional task incorporating the need for teaching, facilitating, grading, and organisational and interpersonal skills for successful implementation. Practice-based experiences which incorporate WIL, to effectively prepare students for employment, must be supported by the necessary preparation, engagement and reflection. This holistic approach ensures maximum benefit from the experience and is integral to successful outcomes (Billett, 2011). However, the benefits of providing WIL opportunities for students are immense and will increasingly become a necessity for universities as they move into an evidence-based and standards focussed regulatory framework.

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APPENDIX 1. Overview of Assessment in 10 Undergraduate, Academic Programs

TABLE 1 – Overview of Assessment Strategies related to WIL, 2012

Discipline	Year of Study	Type of Assessment	Category
Exercise Physiology	1st	Exercise programming/role play	Simulation
		Group practical presentation	Oral
		Online quiz	Knowledge
		MCQ	Knowledge
	2nd	OSCE	Simulation
		Online quiz	Knowledge
		Laboratory assignments	Knowledge
	3rd	Lifestyle changes program	Industry based case study
		MCQ	Knowledge
		Behaviour change program	Industry based case study
	3rd	Case study tutorial/participation	Case study
		Clinical skills	Fieldwork
	4th	Log of clinical hours	Written task
		Supervisor's report	Performance
		Placement evaluations/	Reflections
		OSCE	Simulation
		CV and job application	Written task
Optometry	4th	Practical-written-short answer/long answer/report	Written task
			Oral
		Report presentation	
	5th	Examination of practical work – patients in clinic	Fieldwork
			Case studies
		Case reports	
			Reflection
		Patient log book – self evaluation after each consultation	
	5th	Examination of practical work – patients in clinic	Performance
			Oral
		Presentation	
	5th	Case logs	Written task
		Written case reports	Written task
		Case Presentation	Oral
		Supervisors evaluation report on	Performance

		performance	
Nursing	1st	Health history interview (patient)	Case study
		iPortfolio development (evidence)	Portfolio/reflection
		Psycholoter skill assessment in simulated environment	Simulated
	1st	Health report in community context	Written task
		Community health task (group)	Case study
		Clinical skills development (3 parts)	Knowledge
		Work placement	Performance
	2nd	Clinical assessment – ANMC competencies	Portfolio
		Clinical skills assessment simulated learning	Simulation
		Medication test	Knowledge
		Clinical case study	Case study
	2nd	Medication test	Knowledge
		Clinical case study	Case study
		Skills assessment	Simulation
		Work placement	Performance
	4th	Simulated assessment (Medical Emergency training)	Simulation
		Medications calculations test	Knowledge
		Clinical learning contract letter of introduction	Portfolio/reflection
		Clinical evaluation	Performance
		Professional portfolio	Portfolio/reflection
Marketing	1st	Project brief (group)	Knowledge
		Examination	Industry based
		Report	Case study
Pharmacy	4th	Workbook/reflection	Portfolio/reflection
		Oral exam	Oral
		Work placement	Performance
Architecture	5th	Practice assignment	Industry based case study
		Specifications assignment	Written
		Exam	Knowledge
Occupational		Fieldwork placement and preparation	Performance

Therapy		Reflective critique of fieldwork	Reflection
		Portfolio	Reflection
		Inter-professional workshop	Oral
Education (Primary)	3rd	Presentation – philosophy of teaching	Written
		Assessment and evaluation overview	Written
		Integrated program with a focus on 5 lessons	Simulation
		Professional practicum	Performance
		Resume	Written
		Professional portfolio (iPortfolio)	Reflection
		Professional placement	Performance
		Placement reports/presentation	Oral
Law	3rd	Reflective journal	Reflection
		Portfolio	Reflection
		Presentation	Oral
	3rd	Portfolio	Reflection
		Presentation	Oral
		Placement evaluation	Performance
	3rd	Presentations	Oral
		Reflective notes	Reflection
		Placement evaluation	Performance
	3rd	Self- assessment	Reflection
		Case presentation	Oral
		Performance	Performance
	3rd	Self- assessment	Reflection
		Case presentation	Oral
		Performance	Performance
	3rd	Self- assessment	Reflection
		Case presentation	Oral

About the Journal

The Asia-Pacific Journal of Cooperative Education publishes peer-reviewed original research, topical issues, and best practice articles from throughout the world dealing with Cooperative Education (Co-op) and Work Integrated Learning/Education (WIL).

In this Journal, Co-op/WIL is defined as an educational approach that uses relevant work-based projects that form an integrated and assessed part of an academic program of study (e.g., work placements, internships, practicum). These programs should have clear linkages with, or add to, the knowledge and skill base of the academic program. These programs can be described by a variety of names, such as work-based learning, workplace learning, professional training, industry-based learning, engaged industry learning, career and technical education, internships, experiential education, experiential learning, vocational education and training, fieldwork education, and service learning.

The Journal's main aim is to allow specialists working in these areas to disseminate their findings and share their knowledge for the benefit of institutions, co-op/WIL practitioners, and researchers. The Journal desires to encourage quality research and explorative critical discussion that will lead to the advancement of effective practices, development of further understanding of co-op/WIL, and promote further research.

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If the manuscript is deemed acceptable for publication, and reviewers' comments have been satisfactorily addressed, the manuscript is prepared for publication by the Copy Editor. The Copy Editor may correspond with the authors to check details, if required. Final publication is by discretion of the Editor-in-Chief. Final published form of the manuscript is via the Journal website (www.apjce.org), authors will be notified and sent a PDF copy of the final manuscript. There is no charge for publishing in APJCE and the Journal allows free open access for its readers.

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Types of manuscripts the Journal accepts are primarily of two forms; *research reports* describing research into aspects of Cooperative Education and Work Integrated Learning/Education, and *topical discussion* articles that review relevant literature and give critical explorative discussion around a topical issue.

The Journal does also accept *best practice* papers but only if it present a unique or innovative practice of a Co-op/WIL program that is likely to be of interest to the broader Co-op/WIL community. The Journal also accepts a limited number of *Book Reviews* of relevant and recently published books.

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.

Topical discussion articles should contain a clear statement of the topic or issue under discussion, reference to relevant literature, critical discussion of the importance of the issues, and implications for other researchers and practitioners.