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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)**

![Diagram](image)

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 Reeder, “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; Reeder, 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.
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.
References


