

Developing a collaborative model of industry feedback for work placement of business students

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Work-integrated learning (WIL) is a signature feature of study in many higher education institutions. In business degrees, industry feedback is recognized as an integral part of the assessment of WIL, yet the role played by industry in appraising student performance in the workplace has not been clearly defined. Based on interviews with industry supervisors and academic mentors, this paper addresses the integration of academic and industry supervisor assessment practices designed to maximize student learning outcomes and capture the depth of the learning experiences during a work placement. A model of industry feedback was developed to incorporate planned assessment practices that achieve the learning outcomes agreed to at the start of the placement by all stakeholders: the student, the academic mentor and the industry supervisor. (*Asia-Pacific Journal of Cooperative Education*, 2013 14(1), 27-43)

Keywords: Work-integrated learning (WIL); industry supervisor role; workplace assessment

Traditionally, in disciplines that have strong vocational intent such as medicine, accounting, law and architecture, universities have taught the necessary discipline content, while professional practical skills have typically been taught on the job in the graduates' capacity as trainees within hospitals, law firms, government departments and accountancy firms. Involvement of employers in the training of graduates into the practices of work has been the norm. At its most basic level, higher education has provided the staffing function of allocating and sourcing potential employees, who would then be trained and directed by larger organizations (Abbott, 2002).

Contemporary debate focuses on 'employability skills'², which expresses a view that graduates must come to workplaces ready to 'hit the ground running' (Sheldon & Thornthwaite, 2005) in order to better face increased competition in the graduate employment market (Orrell, 2004). Rather than building and applying skills through workplace practice, employers are seeking graduates with a range of technical and generic skills that minimize additional on-the-job training by employers (Patrick et al., 2008; Sheldon & Thornthwaite, 2005). This extends the need for work-integrated learning (WIL) experiences to the business domain and a range of professions.

The work experience that is a feature of WIL has the potential to reinforce the professional learning acquired in traditional university environments whilst ensuring generic skill development that is considered instrumental in providing graduates with adequate skill sets

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² Many alternative terms are used to describe employability skills. In the US, employability skills are sometimes referred to as transferable skills or 'workplace know-how'. In the UK, terms such as core skills or personal skills are used more frequently to denote employability skills. In Australia, generic skills is the term more widely used to describe employability skills at the discipline level, while at the university-wide level, employability skills tends to be a more widely-used term.

(Cranmer, 2006). WIL enables professional development in experiential learning environments. Atkinson, Rizzetti and Smith (2005) recognized that WIL has the potential to provide broader learning outcomes than classroom-based studies and that it permits students to obtain benefits in terms of educational, individual, career and vocational skills development. Corrin and Smith (2007) highlighted the increasing emphasis on WIL-type learning experiences in universities and the associated need to examine and refine the academic standards of its related assessment. Despite the recognition of the value added by WIL programs, a range of concerns about the assessment processes have been documented, with many believing assessment is often concluded in a rush and, as such, frequently not under the best conditions (Hodges, Smith & Jones 2004; Coll & Zegwaard, 2006). Additionally, there is a tendency to assess that which is easiest to assess and, in doing so, omit more detailed insights about student core employability skills (or lack thereof). Consequently, assessments for work-based projects have typically not differed from those that are university based. Many current practices only assess criteria that are based on academic learning outcomes and do not reflect the specialized learning that takes place in WIL courses. Wellington, Thomas, Powell & Clarke. (2002) found that many institutions continue to use traditional assessment techniques, such as exams, as a preferred means of testing student learning in WIL programs. This remains the scenario in most engineering courses and reflects what Hodges, et al. (2004) refer to as a tendency towards packaging learning into prescribed and specific learning outcomes, something noted to be problematic for learning that takes place in the workplace (Hodges et al., 2004; Coll & Zegwaard, 2006).

One of the main reasons for inadequate assessment in the workplace is the lack of understanding of the nature of learning in the WIL environment – what is being learnt and how. Learning in the workplace is influenced by personal, interpersonal, institutional, social and historical factors (Foley, 2004). Most workplace learning occurs informally, but consciously through experience, or incidentally and unconsciously (Eraut, Alderton, Cole & Senker, 1998). This means that measurement of learning and capturing individual learner progress in the workplace is fraught with complexity.

The aim of this study was to develop an educational model for integrating feedback in WIL assessment practices. It builds on an earlier study of Kaider, Richardson, Jackling and Henschke. (2008), designed to develop a framework to guide involvement of all stakeholders in WIL assessment. A synthesis of the findings formed the basis of the Contextual, Capability driven, Action-based learning, Relationship and collaboration building Developmental, Student Centered (CCARDS) assessment framework for WIL practice of business students. The present study specifically focuses on the level of integration of academic and industry collaboration in student assessment as one aspect of a broad framework of effective WIL practice. The recommended formative assessment processes are featured in the earlier work of Richardson et al. (2009).

The paper is organized as follows: the next section outlines the literature around academic and industry supervisor perceptions of feedback strategies and then uses Mant's (1997) plan-do-review incremental change cycle as a framework for WIL assessment. This is followed by a description of the research design and the analysis of interviews with industry supervisors and academics. The paper then presents a summary of the findings for assessing students' work experiences and concludes with a proposed model that integrates industry feedback in assessment as part of the overall assessment of WIL.

LITERATURE REVIEW

The value of industry supervisors in providing feedback³ to students in situ has been found to be significant in facilitating students' professional development (Richardson et al., 2009). Practicums, and clinical and professional practice in the fields of medicine, allied health, education and law have relied on significant feedback from industry supervisors, often involving comprehensive assessments. There has been less of a tradition in the field of business. Certification processes by professional accounting associations such as the Certified Practising Accountant CPA Australia have valued supervisor feedback as part of the structured mentor program for members. Formalized work-based learning activities and placement in other business programs is relatively new.

Nature of Industry Feedback

Clear and supportive formative feedback processes have not generally been an important feature of WIL programs offered at the undergraduate level. Prior literature indicates that industry feedback has tended to be restricted to negative feedback on students' WIL experiences by industry supervisors (Pepper, 1996). Kluger and DeNisi (1996) found that one third of feedback interventions resulted in decreased performance. The framing of negative feedback was found to influence how recipients responded to the feedback (Ilgen & Davis, 2000). Hence, the judgmental feedback provided by some industry supervisors may create barriers to learning (Jones et al., 2008; McNamara, 2008). This may explain the importance of preparing industry supervisors for their role. However, even in the case where a clear requirement for feedback is established, the preparedness of supervisors to provide feedback is not always guaranteed. Eisenberg, Heycox and Hughes (1996) found a lack of training or experience in the role of evaluating performance can lead to workplace supervisors feeling less confident in providing practicum feedback (p. 33). Universities often spend considerable resources in developing relationships with employers but fewer resources in ensuring that these employers are equipped and confident in fulfilling their role.

The WIL experience requires students to apply discipline knowledge gained in the traditional university environment to a work context. The learning or transformation that occurs is described in terms of professional development (Kolb, 1984). This is dependent on the provision of an effective process that provides opportunities for stakeholders to plan, do and reflect iteratively. Consequently, Mant's (1997) plan-do-review incremental change cycle was used in the research design of this study.

This study addresses the attributes of a best practice process for WIL assessment from both the industry supervisor and academic mentor perspectives. Assessment processes, templates and collaborative events were designed to assure maximization of the learning outcomes for students. The experiential and individual nature of workplace learning necessitates clear procedures and roles. At the university where this study was conducted, the academic mentor facilitates the planning, work experience and review phases of the student's professional development. However, in some instances academics assess the success of the endeavor, while in other situations the industry supervisor contributes to the overall assessment. This represents the integration of academically specified learning outcomes and

³ Descriptors for industry supervisors include industry mentors, industry supervisors, industry advisors and workplace supervisors. Descriptors for the academics involved in WIL include academic mentors, academic supervisors, academic advisors and academic coordinators.

professional development. In all workplace learning experiences, the process is cyclical and iterative as the industry supervisor provides information, works with students and academics to plan the work placement, and acts as a role model.

In this study, data were collected in each phase of the plan-do-review cycle as illustrated in Figure 1.

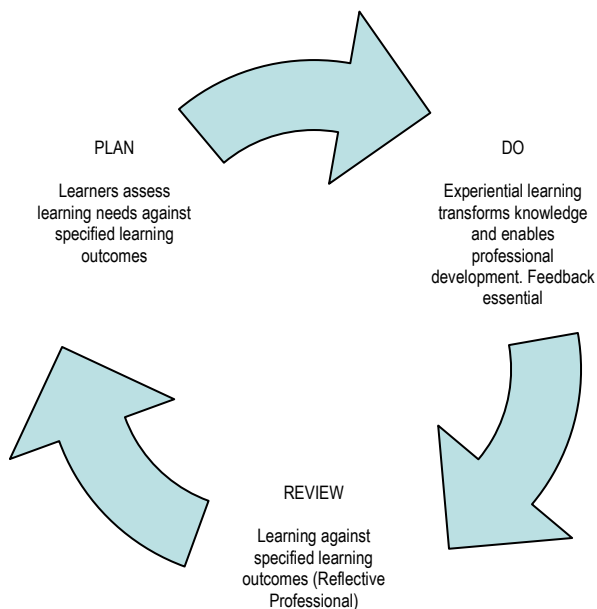


FIGURE 1. The WIL Experience as a Plan-Do-Review Cycle

The following part of this section of the paper examines the prior literature around Mant’s model, with specific reference to its potential application to assessment of student performance during industry placements. The literature includes references to educational models that examine ways of undertaking assessment that is underpinned by the expected learning outcomes of a WIL program.

Plan – Alignment of Learning Outcomes With Assessment

The first component of Mant’s model – ‘Plan’ – involves alignment of learning outcomes with assessment. Several studies support the concept of aligning assessment with learning (Ramsden, 1992; Biggs, 2003; Henderson & McWilliams, 2008). Typically, WIL tasks and assessment tools are designed to plan students’ work, enable self-appraisal of capability and provide evidence of professional development (McNamara, 2008; Williamson, 2008). Assessment occurs in a range of learning contexts, such as traditional classrooms, workplaces or e-environments that support the blending of universities and workplaces. Students’ needs are diverse and vary according to their stage of professional development (Atkinson et al. 2005). Academics and industry supervisors collaboratively provide learning support and work with students to set achievable goals for personal and professional development.

Jones et al. (2009) found that the majority of industry supervisors advocated joint cooperation between the university, the work placement and the student in determining learning objectives. They suggested that by building a skills portfolio, or a clearly articulated vision of a career trajectory, a student could discuss and develop some personal goals and aspirations with the workplace supervisor as a basis for performance assessment. Student ownership of the goals was encouraged and the template provided clear expectations for the supervisor and open communication between the university, the workplace and the student (Jones et al., 2009).

Working with industry supervisors to establish capability criteria for measuring performance is integral to clarifying their role. Eisenberg et al. (1996) and the Australian Learning and Teaching Council WIL report by Patrick et al. (2008) described a need for training and exemplars to assist industry supervisors in their role of evaluating performance.

Do – Industry Supervisor Feedback

The 'Do' phase of workplace learning recognizes the importance of continuous validation of activities requisite for 'knowledge for action'. The processes to ensure students maximize their learning by critically evaluating the application of professional knowledge to prescribed tasks would require continuous feedback from industry supervisors and as a part of the formative assessment process.

Despite the importance of feedback to students' learning, the literature has paid limited attention to methods for soliciting and framing industry supervisor feedback. Supervisor feedback is generally acknowledged as being difficult to obtain and focused on analysis rather than outcomes (Reeders, 2000; Cates, 2005; McNamara, 2008). McNamara describes a supervisor feedback report in which the supervisor indicates whether the student has been observed fulfilling a set of standard criteria. The criteria are set in relation to expected workplace skills. This type of report forms part of the summative assessment, rather than being 'merely formative' (McNamara, p. 4).

Industry supervisors have a role in appraising performance in a workplace which is not necessarily the same as that of an academic. Eisenberg et al. (1996) found a lack of training or experience in the role of evaluating performance can lead to workplace supervisors feeling less confident in providing practicum feedback (p. 33). Jones et al. (2009) noted general support for half day supervisory training: not that they did not already have adequate supervisory skills; but more to put a focus on the student. It was suggested that this might be done in some form of concise document of "hints and tips" (Jones et al.).

Collecting feedback from industry supervisors that is meaningful for students and therefore clear, relevant, descriptive and supportable can be problematic (Kudushin, cited in Pepper, 1996). Feedback on performance is clearly important, though Kluger and DeNisi (1996) assert the influence of feedback on performance can be both positive and negative. They found that one third of feedback interventions resulted in decreased performance.

Zegwaard, Coll and Hodges (2003) describe a model for supervisor assessment that includes a process for establishing criteria. Working with the placement coordinator, science and technology employers determined the top-ranked competencies of students during placement. The competencies were identified as ability and willingness to learn; teamwork and cooperation; initiative, analytical thinking; computer literacy; concern for order, quality and accuracy; and written communication skills (Zegwaard et al., 2003). As part of Zegwaard

et al.'s study, these competencies were used in a template with supervisors asked to rank student performance part way through the placement and at the end of the placement. Similarly, Jones et al. (2009) developed a model that enabled students to establish personal goals in conjunction with supervisors and academic-determined course and workplace objectives.

Review – Measurement of Learning

The 'Review' phase of Mant's (1997) plan-do-review cycle builds 'knowledge for understanding' and the reflective practitioner (Kolb, 1984), which requires review of change or learning in the workplace against the learning outcomes agreed upon by all stakeholders in the planning phase. In terms of summative assessment, students expect to receive clear criteria from their academic mentors (Jones et al., 2008). Nicol and MacFarlane-Dick (2006) found that students can only achieve learning goals if they understand the goals, assume some ownership of them and can assess progress. Therefore, clear assessment criteria need to be established at the outset by the academic, or the academic in collaboration with the industry supervisor, in order to delineate the learning goals and to facilitate the measurement of the attainment of these goals.

RESEARCH METHOD

The research approach was to collect interview data from both academics and industry supervisors. As the literature on the incorporation of industry feedback to students within assessment practices is not extensive, practicing industry supervisors were interviewed to gain their perspectives on their role in assessment. Furthermore, feedback from academic mentors was sought to expand the knowledge of industry feedback across various business disciplines.

Industry Respondents

The respondents were employers who host students on work placements from a university in Victoria, Australia and had agreed to be interviewed following completion of a survey distributed in the first phase of the project (Richardson et al. 2009). The employers were then selected by the project team to ensure representation from four major discipline areas of business: 1) Accounting and Law; 2) Business Information Technology; 3) Economics, Finance and Marketing; and 4) Management. Industry-based work placement supervisors, experienced in supervising placement students, were chosen to obtain examples of methods they had used to evaluate student performance during WIL.

The sample comprised employers from companies that ranged in size from small (less than 50 employees) to large (more than 100 employees). In particular, the study incorporates input from 12 industry supervisors in terms of defining their roles with students and the university and delineating the criteria for student performance. As indicated by Guest, Bunce and Johnson. (2006) this number of interviews was sufficient to enable the development of meaningful themes and interpretation. Table 1 provides an overview of the demographic composition of the industry supervisors showing type of industry, years of experience with WIL and average length of placement of students in the organization.

TABLE 1. Demographics of Industry Supervisors

Industry supervisor	Company Type	Position held	No. of employees*	Company's Yrs. with program	Individual's years. with program	Discipline area for WIL
1	Private Corporation (Technology & Consulting)	IT Architecture group	>100	3	1	Business Information Systems
2	Government owned organization	Business Systems Analyst	>100	3	2	Business Information Systems
3	Government owned organization	Enterprise Architecture	<100	5	5	Business Information Systems
4	Private Corporation (Technology & Consulting)	Global Technology Services	>100	2	2	Business Information Systems
5	Public Organization	Chief Operating Officer	<50	2	3	Business Information Systems/ Logistics
6	University	Manager Call Centre	>100	4		Business Information Systems
7	Public Organization	Extranet Service Delivery	<50	12	5	Accounting/ Business Information Systems
8	University	Computer Laboratory Manager	>100	1	1	Business Information Systems
9	Private Company (Manufacturing & Marketing)	Manager Professional Services	<50	6	6	Logistics/ Marketing
10	Private Organization (Pharmaceuticals)	Manager Professional Services	<50	1	1	Economics
11	Private Company (Mortgage Brokers)	Managing Director	<50	5-6	5-6	Accounting/ Marketing/ Finance/ Computing
12	Private Company (Financial Advisors)	Practice manager	<50	3	2	Economics/ Finance

*Note: employee categories were <50; 51-100; >100.

Academic Respondents

Academic WIL coordinators from the four discipline areas of the business field of the university were invited to participate. Six academic mentors responded to email requests for interviews and as part of the interview were asked to describe their methods for incorporating industry feedback in assessment of WIL courses.

Data Analysis Strategies

The industry supervisor interviews involved guiding the interviewees through five main topics: the role of the supervisor; the practice of giving feedback to students; student involvement in feedback; employer attitude to providing feedback; and shortcomings in the current processes and recommendations. The industry supervisors were encouraged to give examples and to focus on what takes place in practice. The interviews lasted for at least thirty minutes and a transcribed copy of the interview was sent to the interviewee for purposes of validation. The data were interrogated to identify themes (Hoyle, Harris & Judd, 2002). The main themes identified included planning the work experience, aligning the expectations of students and industry supervisors, and the practice of giving feedback to students. Results were tabulated and aligned with the findings from the literature review with illustrative extracts from the transcripts used to support the findings. The process of analysis followed an eight-step approach commonly used in qualitative research (McMurray, Pace & Scott, 2004, pp. 250-251) code schedules, assemble answers, sort by categories, identify themes, state themes, and provide examples, identification of similarities and differences, and reporting of the process and results.

The research method outlined above was managed by different members of the research team. The final review of the development of themes and allocation of transcripts to the appropriate themes was used as the means of establishing inter-judge reliability (Tashakkori & Teddlie, 1998).

Interviews with academics included the following main topics based on the literature: the current WIL program; the current process for facilitating industry feedback to students; the current process for assessing WIL courses and incorporating feedback; and areas for improvement. The academics were encouraged to focus on what takes place in practice. The interviews lasted for between thirty and sixty minutes. Transcriptions of the interviews and the literature were analyzed to find alignment between stakeholder needs and recommendations for best-practice found in the literature. The analysis followed a similar methodological approach to that outlined above for industry supervisors.

The next section presents the findings together with discussion linked to the prior literature around Mant's model of plan-do-review as shown in Figure 1 and as applied to WIL.

FINDINGS AND DISCUSSION

The data analysis enabled the identification of clusters and themes. Academics' and industry supervisors' descriptions of their experience of workplace assessment validated the need for tools, processes and collaborative discussion during each stage of the model.

Plan – Alignment of Industry Supervisor Feedback and Student Expectations

The need for all stakeholders to be involved in planning the student work was reiterated by the industry and academic mentors interviewed. Industry supervisor comments displayed in

Table 2 emphasized the difference between academic learning and workplace learning. Various respondents indicated that they encouraged students to make the transition from an academic to a work-based environment that encompassed greater self-sufficiency than that experienced at university. Efforts to implement this approach included the use of work flow diagrams and skills training. The message from industry supervisors was that more comprehensive planning of the industry placement is necessary to make the transition to work more seamless. Nine of the twelve industry supervisors emphasized the importance of appropriate collaboration and training prior to the student placement. As industry supervisor 7 (see Table 2) indicated, students need to engage in more intensive preparation via pre-placement activities that encompasses an understanding of the employment role. However, the feedback from industry supervisors gave no indication as to how and when this preparation might occur. This raises the question of whether this is an activity that should be part of the student's classroom engagement, or perhaps an assessment activity pre-work experience placement. Overall, the industry supervisors identified a number of recommendations for the planning phase including the need for better preparation of students before undertaking WIL as part of the planning stage.

In terms of the responses from academics, there was more clearly a 'hands off' approach to the planning stage with industry placement. Prior literature about the purpose of WIL that exists across disciplines indicates that when there is a strong association with the knowledge structure of the professions, the emphasis is on producing future professionals. For example, in social work and Business Information Systems programs at the university where this study was conducted, learning plans are developed by the work placement students in which they describe learning goals and learning tasks that would be achieved during placement. The plan is discussed and coordinated with the field educator/industry supervisor. The work plan provides the academic mentor with a view of the knowledge and skills applied in the workplace that enables the industry supervisor to provide feedback by ticking a number of boxes. Within the four business schools the association with professional practice is less clear; the focus is on providing students with 'work ready' skills that will benefit their employability options⁴.

Do – Industry Feedback

Zegwaard et al. (2003) warn that the complexity of the placement process and the context of the learning environment make the choice of feedback complicated. This is especially the case where industry supervisors provide feedback and grade assessments. Employability skills can serve as the performance criteria and, if the feedback is marked with grades instead of just pass/fail, it takes on a normative dimension.

Moderation of assessment is an important aspect, given that supervisors in different environments may assess differently. The situated learning view advocated by Lave and Wenger (1991) promotes individual exposure and osmosis within workplaces. Although immersion in the workplace and participation in everyday work activities has been shown to develop many skills, it does not "follow that everyday work experiences are conducive to adapting or transferring workplace learning to other circumstances and situations" (Billet, 2002, p. 31).

⁴ A copy of the work plan is available on request from K. Henschke (Kathy.henschke@rmit.edu.au) – third named author on this paper.

TABLE 2. Plan Phase – Industry Supervisor and Academic Mentor Comments

Panel 1	Industry Supervisor Interview Comments
	<p>Before the students get to a company, there needs to be a session where they can comprehend what they are signing up to. I get the impression that they don't recognize that they are an employee. (Industry Supervisor 2)</p>
	<p>I try to assist the student in the transition from the academic (micro-managed) cultural environment to the work-based (self -motivated, initiative) cultural environment. (Industry Supervisor 3)</p>
	<p>Preparation needs to improve. The students need to understand what they can get out of the placement and how to apply their theory to the practice ... Pre-placement students should be encouraged to understand the role of an employee and the role of an employer. They need to come to work with a better understanding of the expectations an employer has of employees in the work setting. (Industry Supervisor 7)</p>
	<p>Guidelines for supervisors given at the start of placement would be good to help the students get the most out of their time. (Industry Supervisor 12)</p>
Panel 2	Academic Mentor Interview Comments
	<p>The learning plan is supposed to underpin this placement experience as being about student learning – it is not about work experience it's about student learning in the work place. (Academic Mentor 1)</p>
	<p>We tend to keep hands off. The student is there to gain workplace experience. (Academic Mentor 4)</p>
	<p>It has been a 'now you're the employee, we have to back off'. I'm sure that many of them might like some guidelines, particularly the small ones [organizations]. (Academic Mentor 5)</p>
	<p>The most important thing is will the student be employed into a meaningful role in which they have day-to-day responsibilities which is attached to their business report project. The student and their supervising manager would work together to determine what might be done. It must add value to the company. (Academic Mentor 2)</p>

Much of the knowledge required of professionals is tacit. A range of feedback methods are employed in organizations through structures such as training, shadowing, mentoring, coaching, direct and indirect guidance. Beckett (2011) suggests beginning professionals need these opportunities to give reasons and receive encouragement in order to develop their professional identities. In this study, a sample of industry supervisor and academic mentor comments that emphasize recurring themes related to the 'do' phase are shown in Table 3. Overwhelmingly, industry supervisors considered providing feedback to students an important function of their role as supervisor (see Table 3 Industry Supervisors 1, 3, 5 & 6 comments). They were comfortable with their role because of the induction training, assistance, collaboration with the university via academic mentors and/or past experiences. A number saw their role as providing feedback on qualities required for professional practice (see Table 3 Industry Supervisor 3 comment). Zegwaard et al. (2003) used employability skills as the performance criteria, similar to the forms used in one of the programs in this study to promote feedback and discussion. All the academic mentors interviewed considered workplace feedback as fundamental to maximizing student learning,

but were less clear about the criteria set for assessment – as illustrated in Table 3. For example, Academic Mentors 1 and 2 highlighted the importance of assessment but acknowledged that they did not have the knowledge/awareness of how this might be achieved. Concerns regarding reliability and comparability have been considered as constraints to including workplace supervisor feedback in assessment (Costley & Armsby, 2007; McNamara, 2008). This debate has tended to overshadow the need to improve the "informal feedback learning processes that go hand in hand with the 'doing of practice'" (Jones et al., 2009, p. 134).

TABLE 3. Do Phase – Industry Supervisor and Academic Mentor Comments

Panel 1	Industry Supervisor Interview Comments
	<p>I discuss with/teach/guide the student. I review their work and advise them on how to improve, 'try this'. I encourage them to be more self-sufficient and I try to give them a sense of what is required in the real world of work. (Industry Supervisor 1)</p>
	<p>It is important that students understand what the real world is like and that they need to make the most of this opportunity to build a network in the small Melbourne IT industry. I try to give them this feedback. (Industry Supervisor 3)</p>
	<p>A monthly formal process with actions defined would be good. Those actions could be assessable and contribute to their degree. The feedback would relate to work knowledge and maturity, personal growth. (Industry Supervisor 5)</p>
	<p>I follow a consultative approach. Firstly, I give the students my observations, I describe the feedback from peers, ask the student for their view on how things are going. We discuss strengths and weaknesses and determine where to next. (Industry Supervisor 6)</p>
Panel 2	Academic Mentor Interview Comments
	<p>They [supervisors] make judgment about how the student relates to clients, to colleagues, communicates, organizes their time, shows an awareness of the value of their work, is able to integrate knowledge into what they are doing, is able to reflect on what they are doing, and all of those sorts of things. (Academic Mentor 1)</p>
	<p>In the large firms, the student is under continual assessment from the organization. We're not privy to that, it is the organization's process. It is continual and quite demanding. After every job there has to be an audit and you have to be assessed, ordered and ranked. There is a lot of internal assessment. In the small firms [this] doesn't happen. (Academic Mentor 2)</p>
	<p>There is a whole lot of informal feedback from the industry. Informally between the employer and the student but that is not facilitated by us. We know because we hear from students that they talk to their supervisor. (Academic Mentor 3)</p>
	<p>We probably should have something for when they have a job. If the student could be given some information to ask for feedback from the supervisors at 1 month etc. Would help so that official feedback was not provided only in the final presentation. I'm sure that the student is getting this, but it would be nice to have it a little more formalized. (Academic Mentor 5)</p>

Review – Industry Feedback

In this study, principles of good feedback, including review, were deemed important by the industry supervisors consistent with prior literature (e.g. Nicol & Macfarlane-Dick, 2006). Seven (7/12) industry supervisors indicated that they employed processes designed to enable

reflection and close the gap between current and desired performance. These comments point to the need for students to be well-versed on employer expectations and reflect on employer feedback. Just as the roles of industry supervisors need to be made explicit, so too do the roles and expectations of students and academics. The expectations of industry supervisors went beyond assessment criteria and included how to reflect on feedback, how to interact in feedback sessions and how to integrate feedback into action learning cycles.

A critical aspect of the feedback of WIL was a recognized need for improved communication between the university and industry supervisors. Four (4/6) of the academic mentors described review activities that ranged from organized reflective practice to complete dismissal of the need for connection between learning in the workplace and universities. These findings suggest the need for involvement and engagement with industry during placements. This conclusion supports Rainsbury, Hodges, Sutherland and Burrow's (1998) study in terms of collaborative processes that involve students, academics and employers in workplace assessment. In this study, industry supervisors commented, almost without exception, on the need for better communication with the academic institution as well as better liaison between both organizations and the student. Communication needs to occur prior to and during the placement, with suggestions that all three parties be involved at certain stages of the placement. Samples of comments from industry and academic mentors are displayed in Table 4.

Ilgén and Davis (2000) investigated the impact of negative feedback on performance illustrating that reactions to negative feedback do not necessarily produce the desired improvement in performance. Nicol and Macfarlane-Dick (2006) found that students can only achieve learning goals if they understand the goals, assume some ownership of them and can assess progress. These studies provide insights for the present study as almost half of the industry supervisors interviewed did not know if their feedback affected the student's assessment. As Industry Supervisor 12 indicates, there is a need for better communication between universities and supervisors. This is not surprising, as Crebert, Bates, Bell, Patrick and Cragolini, (2004) found that employers, while willing to provide mid-placement formative feedback, were not ready to commit themselves to summative marking affecting the student's formal academic record. The matter of providing graded feedback by industry supervisors requires further research.

In terms of the 'Review' phase, academics' comments illustrate that there is some reluctance and/or disconnect with students once they commence the industry placement and, more specifically, once they returned to university studies. For example, Academic Mentor 4 states that reflecting on the industry experience may be a matter of timing and an aspect of WIL that has not traditionally been successfully undertaken (see Table 4 Panel 2).

In summary, the findings illustrate that the successful introduction and provision of a WIL program requires commitment by all stakeholders and a clear conviction that positive outcomes and relationships can be achieved. Findings from the study support a model that incorporates the design of tools, assessment processes and activities to enhance collaborative assessment.

TABLE 4. Review Phase – Industry Supervisor and Academic Mentor Comments

Panel 1	Industry Supervisor Interview Comments
	I ask the students to write down how they're going. I'll write down how I think they're going and we see where the gaps are. This is done twice yearly. (Industry Supervisor 3)
	It is a two-way conversation. In the coaching the students are encouraged to interact. (Industry Supervisor 6)
	Better communication between the university and the supervisor. An interface between the student, employer and university should build a relationship between the university and the workplace. They should consider what is best for the student. The year out is not about the academic, it is about adding one thing into the CV. (Industry Supervisor 12)
Panel 2	Academic Mentor Interview Comments
	The learning plan is a crafty device that in one document tries to pull together the areas for assessment. Students' learning goals, the learning tasks they'll undertake, a midway review of those goals and tasks, and a final review of the students' performance against those tasks. (Academic Mentor 1)
	An opportunity to reflect and assess what is going on. It was an opportunity for the student to take responsibility for their own learning, to work collegially, to get shared experience. (Academic Mentor 2)
	Talking about the students' reflection on their learning, we've never found it to be successful – maybe it's a timing thing. I'm wary of such things. They don't feel the connection with the university during this year and would consider it an imposition if asked to attend meetings. (Academic Mentor 4)
	WIL needs to address how you harness and work with the knowledge the student acquires in the work place. (Academic Mentor 6)

A MODEL OF INDUSTRY FEEDBACK IN ASSESSMENT OF WIL

Based on the analysis of interview data, a collaborative model of industry feedback – one that incorporates workplace collaboration between all parties before, during and after the placement (see Figure 2) – is proposed to maximize the learning outcomes for students. First, during the planning stage, academics, industry supervisors and students need to collaboratively plan the work activities to be undertaken. The planning stage requires some form of an Industry Supervisor Induction Package, while a Work Placement Plan that is compiled in consultation with the three stakeholder groups would be beneficial. Additionally, the assessment tasks should have clearly identifiable learning outcomes. This type of approach is beneficial to all stakeholders – students, industry supervisors and academic mentors – in setting assessment tasks to achieve the learning outcomes in the 'Plan' stage of the model. A Work Placement Plan should be pre-empted by a position description for the WIL placement addressing the expectations and responsibilities of the three stakeholders. Additionally, the identification of the main goals prepared by the student should be agreed to by the stakeholders. Second, when operating in the work environment, the student requires appropriate feedback to enable ongoing professional development. A feedback opportunity midway through the WIL placement provides an opportunity for the

academic mentor to assess the specific academic opportunities provided to the student, as well as an opportunity for the student to assess the acquisition of personal and professional skills.. The feedback template is completed separately by the industry supervisor prior to a placement visit by the academic mentor. This type of approach in the 'Do' stage of the model enables progress to be monitored in a realistic way by the academic mentor and thus provides an opportunity for corrective action should there be issues encountered by student or industry supervisor.

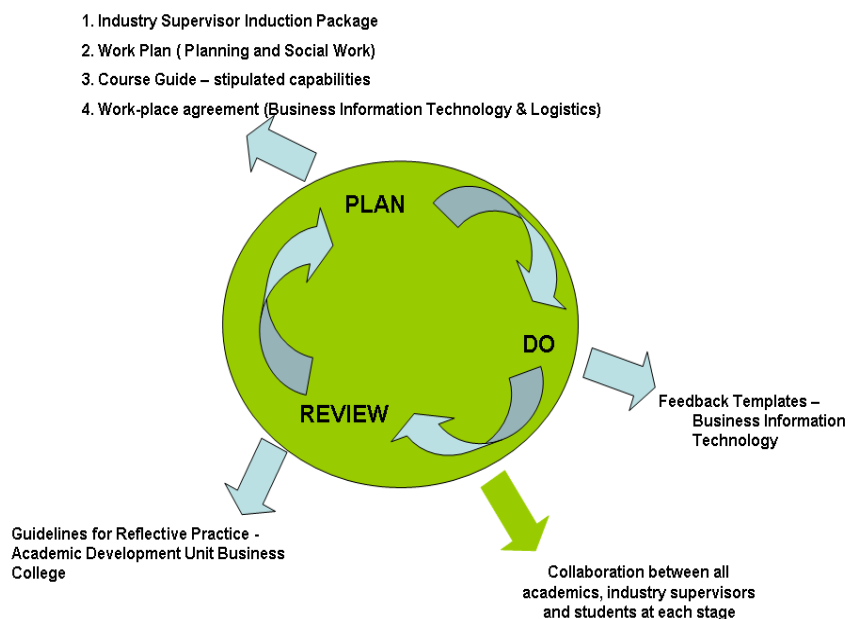


FIGURE 2. A Collaborative Model of Industry Feedback
 Source: Richardson, Henschke and Kelly (2009).

Figure 2 shows that the activities and feedback of WIL should be embedded in a reflective practice spiral during and after the work practice, in order to build an action research cycle in which professional development is validated. This represents the third component of the model of industry feedback: 'Review'. At the university where this study was conducted, a final feedback performance review is undertaken in addition to a midway feedback process. This two-staged approach to feedback is consistent with that used by Zegwaard et al. (2003) in science and technology.

The evidence from this study, however, indicates that greater effort is required to ensure that reflective practice is undertaken, not only when students complete WIL placements, but also when they return to complete their studies generally in the year following the twelve-month WIL placement. While not a feature of this study, reflective practice is undertaken as one of the tools designed to support development at the review stage at the university where this study was conducted. Guidelines for reflective practice from a central faculty level, as shown in the plan-do-review stages are displayed in Figure 2. However, this study illustrates that there is scope for more specific engagement with reflective practice following the completion of the WIL placement.

Clearly, it is important to have learning outcomes for WIL activities that reflect the unique nature of the learning. It is not just the on-the-job learning, nor is it just academic learning; rather it is the combination of the two that is important to maximize the quality of learning outcomes. This learning also involves people other than the student and academics. Work-based learning may involve an industry supervisor and/or mentor, and workplace colleagues. These workplace personnel are frequently more closely linked with the student's learning and thus their informed and critical role in assessment and feedback needs to be taken into consideration. Therefore in the planning stage, as shown in Figure 2, there is an opportunity for greater collaboration.

CONCLUSION

Industry supervisors have a role in appraising performance in a workplace and it is not necessarily the same as that of academics. Constructive alignment of learning goals where assessment evidences learning outcomes is common practice in the academic sphere. Assessment of employee performance during industry appraisals generally utilizes different benchmarks. A valuable opportunity is lost when academics impose their own assessment framework (or lack of) to evaluate student performance in the workplace. Academics' engagement with industry supervisors is critical to capitalize on the assessment opportunities that drive valuable learning outcomes gained from the WIL experience. The challenge is how to redirect assessment from an academic environment to an industry context of WIL in the workplace, with a focus on the provision of a process that includes opportunities for industry supervisor training and a genuine collaboration between academics, the student and the industry supervisor. The process proposed in this study is underpinned by a plan-do-review model. It enables students to receive industry feedback, given collaboratively agreed learning outcomes. While only using a small sample of industry and academic personnel, this study demonstrates that Mant's model of plan-do-review can be effectively applied to the WIL environment. The model forms a basis for further large scale studies to address the role of the industry supervisor in work placements for students – in particular, business students.

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ISSN 1175-2882

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