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Using poster presentations as assessment of work integrated learning

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Background / context: The ALTC WIL Scoping Study identified a need to develop innovative assessment methods for work integrated learning (WIL) that encourage reflection and integration of theory and practice within the constraints that result from the level of engagement of workplace supervisors and the ability of academic supervisors to become involved in the workplace.

Aims: The aim of this paper is to examine how poster presentations can be used to authentically assess student learning during WIL.

Method / Approach: The paper uses a case study approach to evaluate the use of poster presentations for assessment in two internship units at the Queensland University of Technology. The first is a unit in the Faculty of Business where students majoring in advertising, marketing and public relations are placed in a variety of organisations. The second unit is a law unit where students complete placements in government legal offices.

Results / Discussion: While poster presentations are commonly used for assessment in the sciences, they are an innovative approach to assessment in the humanities. This paper argues that posters are one way that universities can overcome the substantial challenges of assessing work integrated learning. The two units involved in the case study adopt different approaches to the poster assessment; the Business unit is non-graded and the poster assessment task requires students to reflect on their learning during the internship. The Law unit is graded and requires students to present on a research topic that relates to their internship. In both units the posters were presented during a poster showcase which was attended by students, workplace supervisors and members of faculty. The paper evaluates the benefits of poster presentations for students, workplace supervisors and faculty and proposes some criteria for poster assessment in WIL.

Conclusions / Implications: The paper concludes that posters can effectively and authentically assess various learning outcomes in WIL in different disciplines while at the same time offering a means to engage workplace supervisors with academic staff and other students and supervisors participating in the unit. Posters have the ability to demonstrate reflection in learning and are an excellent demonstration of experiential learning and assessing authentically.

Keywords: Work integrated learning, assessment, poster presentations, industry engagement.

Background

The purpose of this paper is to demonstrate how poster presentations benefit work integrated learning (WIL) experiences for key stakeholders by providing academic supervisors with an effective method of assessing student learning, facilitating the sharing of student experiences, and by engaging industry and community partners more fully in the academic aspects of WIL.

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While poster presentations are commonly used for assessment in the sciences, they are an innovative approach to assessment in disciplines such as business, law, and the humanities. This paper argues that poster presentations are an approach that overcomes many of the substantial challenges of assessing WIL.

The paper uses a case study approach to discuss the use of poster presentations for assessment in two WIL units at Queensland University of Technology (QUT). After establishing a context and broad understanding of WIL, the paper provides a more specific discussion of WIL at QUT, and describes the two internship units where poster presentations are part of the assessment. Using posters in assessment is discussed, including establishing criteria to assess posters and the benefits of poster presentations, particularly in WIL experiences, are outlined.

Work integrated learning and internships

Work integrated learning (WIL) describes “programs where academic and professional learning are situated together within the work environment as part of a student’s formal course of study” (Franz, 2007, p. 1) and is one widely-used term to describe situations where students spend time in a workplace setting as part of learning. The WIL Report, a comprehensive scoping study of work integrated learning developed by Australian Collaborative Education Network (ACEN) and funded by the then Carrick Institute (now Australian Learning and Teaching Council, ALTC), identified work integrated learning as “an umbrella term for a range of approaches and strategies that integrate theory with the practice of work within a purposely designed curriculum” (Patrick, Peach, Pocknee Webb, Fletcher & Pretto, 2008, p. iv). Work integrated learning brings “a dual emphasis on the development of both the learner and the organisation... [or] contextual learning founded on the theory of constructivism because learners make meanings by contextualising the content within the learning environment in the workplace” (Delahaye & Choy, 2007, p. 3).

The WIL Report found there is a need to develop innovative assessment methods for WIL that encourage reflection and integration of theory and practice within the constraints that result from the level of engagement of workplace supervisors and the ability of academic supervisors to become involved in the workplace (Patrick et al, 2008, p. 42). The report also highlighted the importance of “universities and employers working together to develop mutually beneficial and sustainable relationships” (Patrick et al, p. 39).

The internship is one type of a range of WIL experiences. An internship is well described as a “three-way partnership between the educational institution, the student intern, and the organisation where the interns take on the challenges of a program of systematic experiential learning” (Inkster & Ross, 1998, p. 6) There are typically three major stakeholders in an internship program - the student, the academic supervisor, and the work-based supervisor as industry or community partner. Each of these partners gains significant benefits from internship programs. Students gain real-world experience; academic programs’ reputations grow and employers gain an improved pool of student applicants who have been ‘trialled’ from which to recruit for fulltime employment (Patterson, 1999). One ongoing challenge for internship programs is to determine the most appropriate assessment that satisfies the requirements of all three partners.

An internship is typically characterised by four elements; i) a specified number of work hours, ii) the work may be paid or unpaid, iii) academic credit is awarded, and iv) oversight is provided by a university representative and a corporate counterpart (DiLorenzo-Aiss & Mathisen, 1996, pp. 71-73). An internship is often completed while students are enrolled in other academic subjects (Thiel & Hartley, 1997). One key benefit of an internship is it provides students with the opportunity to put classroom knowledge into practice in real, dynamic settings. This opportunity can provide students with mentoring and training which further strengthens their transferable skills and abilities, solidifies their sense of work ethic and enhances confidence in their job performance (Kane, Healy & Henson, 1992). Assessment of learning in internships is a significant issue for academic supervisors (O’Toole, 2007). When such an authentic program of study is designed, this real world experience needs to be reflected in the manner of assessment.

Work integrated learning and internships at Queensland University of Technology

Work integrated learning is a central part of the philosophy and approach to learning and teaching at QUT. QUT is strongly positioned as ‘a university for the real world’. This positioning is evidenced through its goals of achieving practical, work integrated and professional experience for its students (QUT Blueprint, 2008).

Over the past three years, significant and focused work has been undertaken across QUT to broaden iterations of WIL both in and outside curriculum, and to refine and develop units with a WIL element, particularly internship units. The university is working towards a more systematic approach to the offering and coordinating of these activities and in particular to their assessment. Internship units in Faculty of Business and Faculty of Law at QUT are the case studies underpinning this paper.
**Internship in Business (AMB310)**

The Internship unit AMB310 is an elective unit available to business students in their final year of study with majors in the disciplines of advertising, international business, marketing, or public relations. In 2009 there were 81 students and in 2010, 109 students enrolled across 3 semesters in each year. Students complete a minimum of 120 hours work placement with approved industry and community partners in their discipline area during a 13-week teaching semester. Placements are undertaken by students in a very wide range of organisation types, reflecting the diversity of practice areas for the disciplines.

Students undertaking the AMB310 unit receive a grade of satisfactory or a grade of unsatisfactory. To satisfactorily complete the unit, in addition to completing required hours of work placement, students must contribute a minimum of five entries to an individual reflective blog on the Blackboard site, complete online careers modules developed by QUT Careers and Employment, and satisfactorily complete three assessment items. The three specific assessment items are an internship plan, a job application, and a poster presentation.

The poster presentation was introduced in Semester 1, 2009 replacing a written report and individual class presentation. The aim of the poster presentation is for students to provide a review of the internship and reflection on their learning experiences and development of capabilities. Each student prepares a poster between A2 and A0 size, using text, photographs, and images. Students link back to the goals, objectives and activities set and described in the internship plan. Scaffolding is provided in class workshops and online learning activities encouraging students to build goals and objectives around the QUT Graduate Capabilities. Guidelines to prepare posters are provided on the unit provided on the Blackboard site, along with links to websites and resources illustrating how to create effective posters, and short video of poster showcase from a previous semester. Exemplars of posters were also provided to students during class workshops. A criteria sheet with descriptors for satisfactory/unsatisfactory poster presentation is provided.

The poster showcase is held in the final week of semester. The showcase is modelled on poster sessions at academic conferences, with posters on display and students presenting a brief overview of their internship, as part of discussion with peers, academic and workplace supervisors. Invited guests at the showcase include workplace and academic supervisors, industry and community partners, and staff from across the broader QUT community.

**Internship in Law (LWB420)**

The Internship unit LWB420 is a final year unit in the QUT undergraduate law course. The unit is offered in Semester 1 each year and there are between 20 and 25 students in each cohort. During a 13-week teaching semester, students complete placements for a minimum of 60 hours in the public or community legal sectors. The unit is graded on a scale of 1 to 7, and the assessment comprises a poster presentation, critical incident report (based on a reflective journal) and the supervisor’s assessment. Posters were introduced in 2009 to replace a class presentation. Students are required to produce a poster on a self-selected topic related to their placement. The posters are presented at a Poster Session that is attended by supervising lawyers, other legal practitioners, academics from the Faculty of Law, and members of the wider QUT community. The Poster Session is held in week 11 of the semester and follows a similar format to the AMB310 Poster Showcase. LWB420 students are also required to submit an abstract describing the thesis of the poster and a one page handout explaining the poster. The purpose of the poster assessment was to enable students to demonstrate their learning in the placement and to learn from the experiences of others.

As with AMB310, students are provided with a detailed task description giving guidelines for the poster preparation, tips for poster preparation, guidance on abstract writing including a worked example, access to an online visual design module to assist in poster design, a step by step example of the process of preparing a poster, examples of students posters from previous years, and a link to the YouTube clip demonstrating a poster session. Students must discuss their proposed poster topic with their workplace and academic supervisor and are encouraged to submit a draft abstract for feedback prior to commencing work on the poster. The abstract is an important part of the planning of the poster. The posters are assessed using a detailed criterion referenced assessment sheet which is provided to students with the assessment task description.

**Assessment using posters in internships**

There are a number of learning theories that have influenced contemporary approaches to WIL, including experiential learning theory (Milne, 2007), and the constructivist approach to learning (Wertsch, 1991). Milne’s (2007) argument for experiential learning theory as a pedagogical foundation for WIL rests on the transformative process by which knowledge is created. Kolb (1984) defines experiential learning as “a process whereby knowledge is created through the transformation of experience”. Here, knowledge is created each time a learner acts – they interpret their experiences and the consequences of their actions on each occasion, and use this feedback to transform their experiences into
knowledge. The constructivist approach asserts that learning is ‘situated’ within a particular context – that is, the value and meaning of experiences is constructed relative to the context in which the experience occurs (Wertsch, 1991).

These influences on WIL impact on approaches to, and selection of, assessment tasks. For this paper, the selection of posters as an assessment task is discussed, specifically criteria used in assessment and the benefits of poster presentations.

Criteria for assessment of posters

To ensure that posters are fairly and consistently assessed, criterion-referenced assessment should be used as it is considered to be more pedagogically sound than norm-referenced assessment because it is based on the principles of validity, reliability and transparency (Biggs, 2003). A detailed assessment rubric assists students to understand what needs to be included on the poster (Stewart, 2008). Criterion referenced assessment is adopted in the case study units based on these observations and as a requirement at QUT.

Summative assessment of posters in the humanities is an innovative practice and there is little precedent to suggest appropriate criteria or performance descriptors for assessment. However, literature in relation to assessment of posters in the sciences does provide some guidance. Bracher, Cantrell and Wilkie (1998) suggest poster presentations should be assessed on four areas: preparation, poster, presentation and discussion. Students can also be assessed on their ability to present their poster in a simulated conference environment (Denzine, 1999).

The criteria for assessment of a poster can be broadly categorised as content, research and the aesthetic component (Stewart, 2008; Conyers, 2003; Levine-Rasky, 2009). One aspect of posters in the humanities that may be different from scientific posters is that where students are encouraged to be creative in their poster design and to minimise text, it may be difficult for the assessor to adequately assess content and research based on the poster alone.

In the case study unit AMB310, while students draw on provided guidelines and resources about poster structure and development, there is limited specific discussion with academic supervisors about the poster. Content and research components are drawn from learning activities and reflective writing in blogs undertaken throughout the semester. Students are encouraged to develop their posters to present both their own style and the environment and culture of their internship organisation.

In the case study unit LWB420, students are required to discuss their poster topics with both the academic and workplace supervisors. They also give a brief in class presentation of their poster and submit a one page handout which assists in marking. In future the handout will be increased from one to two pages to enable students to adequately explain their content and provide references. The option of requiring students to submit a research record (as suggested by Conyers, 2003 and Sisak, 1997) to assist in marking the research component is also being considered.

Conyers (2003) suggests criteria for the aesthetic component of the poster should include balance, visual effect, correct grammar and spelling and logical organisation of information. Criteria suggested by Newbrey and Blatezore (2006) in relation to the aesthetic component relate to the poster title, content structure, explicit flow of information, readability of the text and creativity.

Various criteria have been suggested for the poster content. The particular criteria adopted will depend on the task description and topic and purpose of the poster assessment. The criteria suggested by the literature for assessment of content scientific posters may not be applicable in the disciplines of business and law, or specifically for the WIL context.

Newbrey and Blatezore (2006) suggest the following criteria in relation to content for a scientific poster: the introduction provides the basis of investigation and the approach to answer the question; the results are presented and are understandable; the results support the conclusions drawn; the conclusion follows from the original intent given in the introduction; the poster is self-explanatory; and the poster does not contain spelling and grammatical errors.

Content criteria suggested by Conyers (2003) for posters in nursing education are how well the poster reflects the agreed topic, whether it is pitched to the target audience and how well the topic choice is supported by related evidence; “research marks are awarded based on the literature explored during the process, as evidenced by the inclusion of a reference list.”

Fuller (2000) suggests criteria for assessment of posters in teacher education as being: introduction; sufficient evidence presented; evidence relates to the most important aspects of the question; evidence is organised; value of evidence in terms of source and recency; evidence supported by references; reasonableness of the conclusion; reference list; appropriate amount of content; display of content.
Scott (2005) suggests the following criteria for posters in environmental law: design; informative; acknowledgement of sources; logical message/conclusion; oral presentation; integration with program of study; critical analysis of issues; identified areas for future research; overall impression.

The criteria drawn from the literature were adapted in the two case study units to suit the discipline area, the assessment task, and the WIL context of the unit.

The criteria used for assessment of posters in LWB420 are:
- Thesis (significance of topic and its relationship to the placement);
- Abstract (clear and concise, inclusion of essential information and central thesis);
- Choice of content (currency, significance, relevance to central thesis);
- Critical analysis of issues;
- Research (use of relevant and scholarly sources);
- Referencing;
- Visual appearance (appealing, professionally prepared, use of colour, graphics and font, arrangement of text and graphics, readability);
- Organisation of poster.

Descriptors for each criteria on a 1 to 7 scale are provided, with the criteria weighted, with marks for visual appearance and organisation being worth only one fifth of the total marks for the poster.

The criteria used for assessment of posters in AMB310 are:
- Poster presentation (visual appeal, clear layout, professional presentation, meets size guidelines)
- Poster content (identifies student and organisation, uses reflective writing frameworks to structure content)
- Audience engagement (presentation, discussion, behavior)

Descriptors for each criteria as satisfactory or unsatisfactory are provided. The criteria are equally weighted with students having to achieve satisfactory across all three criteria, to satisfactorily complete the assessment task.

Benefits of poster presentations in internships

Posters offer a range of benefits as part of the assessment in work integrated learning units, particularly internships. There are key benefits for students. Posters are student centred, encourage students to reflect on their learning during their internship, and enable students to demonstrate their learning and to learn from other students’ experiences. They are also felt to be less intimidating than standard oral presentations by enabling the flow of discussion around student experiences (Akister, Bannon & Mullender-Lock, 2000) and an ability to share these experiences with wide audiences including their peers, as well as intern ship industry supervisors, academic staff and other guests. Posters are particularly pertinent as an illustration of authentic assessment for courses which link theoretical constructs to practice in the real world (Akister et al., 2000) hence indicating their suitability as assessment in work integrated learning units, particularly internships. Stegemann and Sutton-Brady (2009) provide a useful summary of the benefits of posters as identified by the literature. Several studies have reported that students feel comfortable with the concept of poster presentations (Stegemann & Sutton-Brady, 2009). Presentation at a poster session is an enjoyable and rewarding experience for students (Dunstan & Bassinger, 1997). Students “showed a sense of confidence during and after the poster sessions” (Sisak, 1997, p. 1066).

Constructing a poster is an effective means of developing both research skills and creative abilities (Vujakovic, 1995; Wimpfheimer, 2004). Poster preparation allows students to become active learners (Huddle, 2000) and encourages deeper learning (Pearce & Sutton-Brady, 2003). It involves students performing a task which is “a hands-on, problem-focused activity which encourages relation of knowledge to a specific question of interest and stimulates demonstration of comprehension” (Bracher et al., 1998, p. 552). In the context of WIL, it can enable students to engage deeply in a research topic relevant to their placement or to reflect on their own learning during their placement. This analysis of students’ time in industry demonstrates a level of critical thinking and deep learning which contributes to the authenticity of the assessment and encourages the development of valuable learning skills.

As a student centred assessment task, posters allow students to select their own topic and approach within the requirements of the unit, and engage in self-directed learning in planning the poster (Fuller, 2000). They choose the content and construct a presentation that most effectively conveys their central theme. By engaging in self-directed learning, students develop skills in planning and monitoring their own work (Fuller, 2000). Poster preparation also encourages clear and concise presentation of information (Wimpfheimer, 2004). According to Vujakovic (1995), the
necessity to present complex arguments concisely in the poster format and without the restrictions of linear thinking requires the students to engage in deep learning by analysing and synthesising arguments.

Poster sessions promote communication skills by enabling students to interact with others in a less formal way (Grace, 2003) which leads to a greater understanding of the subject matter (Huddle, 2000). Students participating in a showcase must engage in interactive conversation with audience members (Denzine, 1999). This aspect of the assessment can be quite challenging for students who may not have previously presented work in this way (Bracher et al., 1998). Students may be required to engage in various levels of conversation; some audience members may know little about the topic and others may have an extensive knowledge and wish to discuss the topic in depth. Participation in these multiple conversations also fosters in students a sense of achievement by enabling them to demonstrate their understanding of the issue and their experience to peers and members of the profession. A showcase situation also enables students to acquire networking skills (Fuller, 2000) which are valuable lifelong learning skills required by professionals in business and law.

The authors have previously suggested that the creation of a poster in WIL satisfies the attributes of authentic assessment using Mueller’s (2008) five authentic assessment attributes (McNamara, Larkin, Beatson, 2009). First, constructing a poster involves students performing a task which, in the context of WIL, enables students to engage deeply in a research topic relevant to their placement or to reflect on their own learning during their placement. Second, posters as assessment of WIL can be said to be real-life rather than contrived in the sense that they require students to complete a real project and develop skills in concisely presenting complex information which are likely to be required in practice. Third, posters are authentic in requiring students to analyse, synthesize and apply what they have learned and to create new meanings from their learning. Fourth, a poster is student-structured; the student is responsible for their individual choice of topic, and engages in self-directed learning in planning the poster (Fuller, 2000). Fifth, a poster assessment provides direct evidence of student learning because the student is required to apply and construct their knowledge. This is particularly so where students are involved in presenting their poster in a poster showcase.

There are significant, and largely unanticipated, benefits to engaging industry and community partners using posters, particularly in a showcase format, as an assessment task.

Research into WIL, including the WIL Report, consistently identifies the importance of maintaining productive partnerships to the ongoing effectiveness of WIL (Patrick et al, 2008, p. 38). An effective and authentic culture of WIL, “aspires to more holistic engagement, fostering partnerships between the university and host organisations in which host organisations legitimate students as learners” (Orrell, 2004, p. 2), along with more ‘intensified engagement’ with industry and community partners. Franz (2008) describes WIL as enabling “iterative relationships to develop for research, teaching and application advancing at the macro level the scholarship of integration” (p. 168).

Feedback from industry and community partners involved in WIL activities over a number of years has highlighted the introduction of the poster showcase as a key initiative in strengthening relationships and encouraging ongoing, broader relationships with QUT. The poster showcase has provided the opportunity for industry and community partners in WIL to visit the QUT campus, another opportunity to meet face-to-face with the academic staff in AMB310 and LWB420 along with other academic and professional staff at QUT. The showcase helps strengthen partnerships with QUT, but also has established and developed networks between industry and community partners. The poster showcase has facilitated stronger communication between stakeholders in the internship, helping to create ongoing partnerships, rather than short-term approaches restricted to semester-long placement and opening opportunities for collaboration in areas other than WIL.

**Conclusion**

This paper has used a case study of two internship units to demonstrate how posters are an innovative assessment task in some disciplines, which provide an effective and authentic approach to assessing learning outcomes. Posters as an assessment item encourage reflection and integration of theory and practice which are desirable outcomes for WIL programs. In this paper it is suggested that criterion-referenced assessment should be used to assess the posters providing summative criteria broadly based on content, research and the aesthetic component. Posters offer a range of valuable benefits to all key stakeholders in an internship placement.
References


