Work Integrated Learning for Design: A Scholarship of Integration

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ABSTRACT

Within an action research framework, this paper describes the conceptual basis for developing a cross-disciplinary pedagogical model of higher education/industry engagement for the built environment design disciplines including architecture, interior design, industrial design and landscape architecture. Aiming to holistically acknowledge and capitalize on the work environment as a place of authentic learning, problems arising in practice are understood as the impetus, focus and ‘space’ for a process of inquiry and discovery that, in the spirit of Boyer’s ‘Scholarship of Integration’, provides for generic as well as discipline-specific learning.

INTRODUCTION

The term ‘work integrated learning’ is used in this paper in preference to other labels referring to situations where students spend time in a workplace setting, for example, ‘co-operative learning’, ‘internship’, ‘practicum placement’, ‘work practice’, ‘work-based learning’, to mention but a few. For the time being, ‘work integrated learning’ (WIL) seems to be most apt for describing programs where academic and professional learning are situated together within the work environment as part of a student’s formal course of study.

The paper begins with a description of some of the main factors stimulating renewed interest in work integrated learning. It then outlines our current conceptual understanding of work integrated learning challenging the extent by which current literature responds to an increasingly dynamic, unfamiliar and unpredictable world. This is followed by a description of a project that seeks to extend and deepen the engagement of design students, educators and practitioners through a cross disciplinary model of higher education/industry engagement that capitalizes on the work environment as a place of authentic learning and the problems arising in practice as the impetus, focus and ‘space’ for a process of inquiry and discovery that, in the spirit of Boyer’s ‘Scholarship of Integration’ (Boyer 1990), provides for generic as well as discipline-related learning. The methodology guiding the development of this WIL model of higher education/industry engagement is then described

THE CHANGING WORLD AND ITS IMPACT ON WORK
AND LEARNING

Like all professions, the built environment design professions face enormous challenges in relation to what Barnett (2004) describes as an increasingly unknowable and ontologically unfamiliar world. According to Barnett there are four ways in which our world is different to the past: first, old is replaced by new in a more rapid way; second, the sense of an unknown world has never been as vivid as it is now; third, from an anthropological perspective there is no longer the sense of order or stability that characterized society until recently; and fourth, the world we are now facing is ontologically different from former worlds (Barnett 2004: 248).

For Barnett, these new qualities of the world contribute to a more personal form of uncertainty that recognizes that we can never hope to satisfactorily describe the world, “let alone act with assuredness in it” (Barnett 2004:250). As proposed by Florida, designers constitute the ‘Super-Creative Core’ of the professions and it is therefore incumbent on the design industry and professions as well as other ‘Super-Creative Core’ professionals including educational professionals and researchers to work more closely in helping to build collegial, creative and sustainable communities (Florida 2002:292-293).

The issue of academic/industry engagement has not escaped the attention of the Federal Government with the Honorable Julie Bishop MP, Minister for Education, Science and Training asking: What is the value of providing professional degree courses which do not reflect contemporary practice? (Bishop 2006:8). Bishop proposes that if universities are to engage more effectively with businesses and communities they will need to align their “structures, processes and operations” with the needs of businesses and communities (Bishop 2006:8). The inherent risk here of course is that a university’s autonomy will be compromised and its academic manifesto eroded. The WIL model proposed in this paper attempts to address this concern by capitalizing on the uniqueness of both environments in a symbiotic way through a specific program in a student’s course of study. Integrating teaching and research is understood to be central to this.

The teaching/research nexus is emerging as a dominant theme in higher education in part to counter notions of teaching and research as mutually exclusive activities of university business. In its strategic prioritization, the Carrick Institute of Learning and Teaching in Higher Education
highlights the nexus of teaching and research as an issue of “on-going importance”; a view also shared by institutes of higher learning such as QUT. As part of its Learning and Teaching Plan 2007-2011, QUT sees “fostering the critical relationship between teaching and research” and “providing opportunities for work-integrated learning that facilitate student transition to professional practice” as significant aspects of its aim “to provide outstanding learning environments and programs that lead to excellent outcomes for graduates, enabling them to work in, and guide, a world characterized by increasing change”. Griggs argues that more than anything, combining teaching and research helps a university to meet its obligation in enabling graduates to participate actively in knowledge creation and practices of learning within their own discipline and work environments (Giggs 2005:4). For Lee, “it is unrealistic and reactionary to treat ‘learning and teaching’ as a separate part of university business from that of major changes in knowledge production, innovation and competitive edge” (2005:7).

One of the main merits of the proposed model is that it regards the teaching/research nexus as a holistic concept where teaching, learning and research are integrally connected (at an undergraduate not just post-graduate level) thus extending its potential by expanding boundaries and moving beyond usual interpretations such as research-informed teaching. Other distinguishing qualities include: explicit recognition of knowledge as being actively constructed and produced in the workplace; and an appreciation of this knowledge as being transdisciplinary in the sense that “...it is not configured by the existing forms and boundaries of knowledge found in universities” (Boud & Tennant 2006: 295).

The move to more extensively align education and practice in response to the changing global situation is echoed by the various design disciplines in their educational policies and/or foci for international discussion and debate. In an international IFI (International Federation of Interior Designers/Interior Architects) Round Table Conference in Singapore last year one of the main recommendations for the future was to “…create a platform for interior design educators and practitioners to be involved in knowledge exchange, creating a new synergy” (IFI Executive Summary of Proceedings 2006:7). It was generally conceded at the Conference: that there was a misalignment between graduate outcomes and the expectations of industry; that Institutions of Higher Education including those in Australia “…have to start out of major changes in knowledge production, innovation and competitive edge” (Weisz & Smith 2005:4). In contrast to academic knowledge which is “predictable, intentional, replicable, prolonged and student-focussed”, professional practice knowledge is “unpredictable, immediate, unique, transient” and has “competing interests” (Orrell 2007). In the past, workplace learning has tended to focus on the acquisition of professional practice knowledge in the form of practical, technical skills. More recently, the workplace has been conceptualized as a setting for the integration of theory and practice and the development and application of generic skills (such as observation, analysis, problem solving, communication, collaboration). According to Savage, “...curriculum design for work-based learning should be centred on understanding practice, rather than learning atomised skill components of professional tasks” (2005:8). This, she argues, “…is consistent with Billet’s (2001) observation that specific skills [should be] learnt in the workplace not as the object of participation but rather in the slippstream of general engagement with practice in the company of experts” (Savage 2005:8).

Such an understanding was central to the development of work integrated learning (WIL) units in the Faculty of Built Environment & Engineering at QUT. In this case, WIL units are conceived as dedicated units in its new undergraduate design, urban development and engineering courses. In the design course, students can elect to undertake WIL units as part of their ‘minor’ studies program. The units have specified learning objectives that aim to develop awareness of the nature of design practice and the ability to develop a range of discipline-specific as well as generic knowledge and skills. Conceived currently as discrete yet developmental units where students have the responsibility for obtaining work experience necessary for achieving the objectives, the opportunity remains limited for deepening engagement at an

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**CURRENT UNDERSTANDING AND APPROACHES TO WORK INTEGRATED LEARNING**

As highlighted by Weisz and Smith, work integrated learning programs or similar are often underpinned pedagogically by the work of educationalists such as Dewey who expressed the belief that “all genuine education comes through experience” (Dewey 1938:25 in Weisz & Smith 2005:606). According to Kolb (1984), Weisz and Smith qualify their position arguing that experience alone is not sufficient to guarantee a deep level of learning. They propose that for this to occur students “...need to be able to receive feedback and to reflect on the outcomes of their work” (Weisz & Smith 2005:606). This they say is currently jeopardized by academic staff who defer the main responsibility for workplace learning to the students and the employers, and that where academics do get involved it achieves surface rather than deep level learning (Weisz & Smith 2005:605).

In part, this could be due to a poor understanding of the nature of practice knowledge and how it relates to academic knowledge. “Academic knowledge, or discipline knowledge, legitimises practice-based professional work by clarifying its foundational principles and relating them to society’s values...it is often learned as procedure in settings like university laboratories and studios which are unlike the practice settings where such knowledge is used” (Savage 2005:4). In contrast to academic knowledge which is “predictable, intentional, replicable, prolonged and student-focussed”, professional practice knowledge is “unpredictable, immediate, unique, transient” and has “competing interests” (Orrell 2007). In the past, workplace learning has tended to focus on the acquisition of professional practice knowledge in the form of practical, technical skills. More recently, the workplace has been conceptualized as a setting for the integration of theory and practice and the development and application of generic skills (such as observation, analysis, problem solving, communication, collaboration). According to Savage, “...curriculum design for work-based learning should be centred on understanding practice, rather than learning atomised skill components of professional tasks” (2005:8). This, she argues, “…is consistent with Billet’s (2001) observation that specific skills [should be] learnt in the workplace not as the object of participation but rather in the slippstream of general engagement with practice in the company of experts” (Savage 2005:8).
overarching level between practitioners and educators and of making it a truly synergistic and mutually rewarding and productive relationship. In this respect, then, there is a real need to: provide a more cohesive, pedagogically sustainable framework in relation to authentic learning for the built environment design disciplines; improve the capacity of the work environment to provide contemporary relevant learning experiences for students along with more effective outcomes for employers and other stakeholders, and; in conjunction, improve the status and purpose of work experience in the eyes of educators, practitioners and students.

In proposing this, the paper recognizes the need for WIL curricula to be developed and implemented in context; a cultural context that acknowledges all the stakeholders and newly emerging philosophical, educational, social and economic needs. This more comprehensive and inclusive approach to work integrated learning reflects what Orrell describes as a ‘transformative stakeholder ethos’ (2004:np). Unlike the ‘value added ethos’ which emphasizes short-term returns for the organization and instrumental training for the student, the ‘transformative stakeholder ethos’ “...emphasises learning, and adopts a long-term view, seeking benefits for all parties” (Orrell 2004:np). It is an ethos that views learning in the workplace as “...holistic, rather than task focused, [where] students are encouraged to develop new ideas through the exploration of subject matter and the actual workplace. Potentially, this ethos epitomises Learning Organisations and leads to authentic, ongoing, transformative partnerships integrating work, curriculum and research (Harvey et al., 1997)” (Orrell 2004:np). In many ways, this represents a return to Boyer’s notions of scholarship particularly the Scholarship of Integration.

In what has become a widely discussed and cited presentation to the American Accounting Association, Ernest Boyer (1990) outlined a reconceptualization of scholarship incorporating the Scholarship of Discovery, the Scholarship of Integration, the Scholarship of Application and the Scholarship of Teaching. This reconceptualization of scholarship forms the basis for the development of the model outlined in this paper. In terms of the Scholarship of Discovery and the Scholarship of Application, the project regards practice within the new world context as a place where the realities of the world emerge and need to be investigated quickly with theoretical as well as procedural integrity and rigor. Such an environment provides a highly relevant context for students to conjoin speculative thought and action in a systematic, rigorous and ethical way (adapted from Kerwin 1994) and for educators, practitioners and students to be seen in a supportive collaborative role as co-researchers. The integration of research and practice will be informed by a growing body of knowledge developed through practice-led research in the creative arts and design areas including my own research (Franz 2000; Franz 2005).

In response to an increasingly complex world, practice is becoming more diverse. Students working in a multidisciplinary practice have a better opportunity than in the university environment “...to go beyond the isolated facts, to make connections across the disciplines, to help shape a more coherent view of knowledge and a more integrated, more authentic view of life” (Boyer 1990:89 describing the Scholarship of Integration). In all, the work environment provides for active, creative, collaborative learning supported by practitioners and academics in mutually inclusive and complementary educator/researcher roles.

**DEVELOPING A HOLISTIC, CONTEMPORARY MODEL OF WORK INTEGRATED LEARNING**

Specifically, the project involves:

(a) Understanding the current status of pedagogical theory related to work-integrated learning and teaching generally for the built environment design disciplines.

(b) Investigating examples of work-integrated learning in tertiary design programs nationally.

(c) Investigating the current and predicted demands on design practice as understood by local design practitioners and their respective professions.

(d) Identifying the barriers to higher education and practice and their collaborative and productive relationship in the context of design work-integrated learning and teaching.

(e) Developing, implementing and evaluating integrated scholarship WIL units.

(f) Developing a WIL model for higher design education and practice that forms an engaging and sustainable basis for on-going WIL development.

(g) Developing engaged and information provision strategies for informing the development of the project and the embedding, extension and adaptation of its outcomes following its completion.

The project will be conducted over a 12 month period within a participatory action research framework. Broadly speaking, action research is systematic inquiry involving a spiral of self-reflective cycles (Kemmis & McTaggart 2000) of planning, acting, observing, reflecting, and disseminating. “Participatory action research offers an opportunity to create forums in which people can join one another as co-participants in the struggle to remake the practices in which they interact...” (Kemmis & McTaggart 2000:595).

In the spirit of the participatory action research, extensive use will be made of existing professional, industry and educational networks. The project will also involve the formation of new cross-disciplinary networks and panels, participation in general education as well as design education conferences and seminars, convening workshops and seminars, and publishing in a variety of formats for the different audiences represented in the project. In terms of dissemination, the project utilizes both engaged as well as information provision type strategies. For the former this includes consultation and collaboration and the provision for continuing dissemination during and after the project. Because of the engagement focus of the project these are considered crucial to its effectiveness. In terms of information provision, the project places emphasis on reports, presentations, papers, professional development and training programs for industry as well as tertiary educators, expert commentaries, and WIL curricula.

Evaluation is one of the key features of action research methodology which underpins the project and as a whole will give it integrity and rigor. The project allows for the inclusion of various stakeholders providing for continuous reflection
and evaluation by stakeholders and other participants as well as ‘more objective’ critique and commentary by external networks of scholars and discipline representatives. Examples of the former include: workshops, seminars, interviews with the latter involving the refereeing process in publication, feedback at conferences as well as from the reference group specifically established for the project.

In summary, this paper launches the project by disseminating and inviting feedback on the conceptual approach to developing a pedagogical model of higher education/industry engagement that in a holistic way acknowledges and capitalizes on the work environment as a place of authentic learning and the problems arising in practice as the impetus, focus and ‘space’ for a process of inquiry and discovery that, in the spirit of Boyer’s scholarship of integration, provides for generic as well as discipline-specific learning.

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