Final Report

Curriculum and pedagogic bases for effectively integrating practice-based experiences

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2011

<http://www.altcexchange.edu.au/group/integrating-practice-experiences-within-higher-education>

With the participation of:
Flinders University
James Cook University
La Trobe University
Murdoch University
The University of Newcastle

The Australian Learning and Teaching Council is an initiative of the Australian Government Department of Education, Employment and Workplace Relations

Support for this fellowship has been provided by the Australian Learning and Teaching Council Limited, an initiative of the Australian Government. The views expressed in this report do not necessarily reflect the views of the Australian Learning and Teaching Council.

2011

ISBN 978-1-921856-25-9

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This report and the two documents listed above can be downloaded from <http://www.altc.edu.au/resource-integrating-practice-based-experiences-griffith-2011>

Appendix One – Synthesis of findings, is also available for download separately from the same page.

<Guidelines for practice: Integrating practice-based experiences>

Executive Summary

Providing students with experiences in practice settings to assist developing their knowledge required for effective professional practice is growing and widening trend across Australian higher education. These experiences aim to assist students to move smoothly and effectively into their selected occupational practice upon graduation. As such they are welcomed by government, industry, and students alike who all want applicable outcomes from higher education. Yet, achieving these outcomes requires informed educational purposes and processes, supported by appropriate curriculum and pedagogic principles and practices that can guide and assist those teaching in higher education to provide students with effective practice-based learning experiences and their integration into the overall curriculum.

Accordingly, this National Teaching Fellowship identifies and appraises curriculum and pedagogic principles and practices for integrating higher education students' experiences across practice and university settings through three phases of activities. Firstly, the fellowship prompted, sponsored and engaged 20 projects from a wide range of disciplines across six universities to identify these principles and practices. Secondly, the 20 projects' processes and outcomes were appraised in terms of their educational worth for developing the kinds of knowledge graduates need to move smoothly into their selected occupations. Thirdly, it attempted to align particular kinds of curriculum and pedagogic practices with specific kinds of learning, including the kinds of epistemological practices that students will need to engage in to maximise the learning potential of these experiences.

The articulation of curriculum principles to guide the organisation of learning experiences and their enactment is held to stand as potentially useful outcomes, as are the pedagogic practices identified that can be utilised before, during and after students' practice-based experiences. Also, having a clearer understanding of what students need to do to assist in this development and guiding them to do that are essential component of higher education provisions. In all, it is anticipated that the clarification of educational purposes associated with providing an integrating practice-based experiences, considerations for planning and enacting the curriculum, and bases for enriching students' learning experiences, including promoting their agency as learners, identified here will improve learning outcomes for Australian higher education students.

From this fellowship, five key contributions to knowledge emerge. Firstly, it is necessary to include the personal processes of experiencing and reconciliation what is experienced by learners in each of the settings; and, secondly, consideration of how students engage with the experiences and pedagogic practices is central to the richness of learning. Thirdly, merely providing practice-based experiences for students is insufficient unless those experiences are enriched through preparation, engagement and opportunities to share and reconcile what has been contributed by these experiences. Fourthly, the findings highlight the importance of enacting pedagogic practices that are most likely to develop engaged and critical practitioners. Fifthly, the need to engage, prepare and extend students as active and agentic learners is central to the effective integration of experiences across practice and higher education settings, their ability to engage in professional practice and their becoming effective critical and reflexive practitioners.

Acronyms and definitions

Work integrated learning (WIL) – the process whereby students come to learn through experiences in educational and practice settings and reconcile and integrate the contributions of those experiences to develop the understandings, procedures and dispositions, including the criticality and reflexivity, required for effective professional practice.

Curriculum – the kinds of learning experiences in practice settings and higher education institutions and how they are organised, sequenced and enacted.

Within this definition, sub-categories of curriculum are defined as follows

Intended curriculum – what is intended to occur by sponsors or developers in terms of educational goals (ie what should be learnt) and learning outcomes as a result of the curriculum being implemented.

Enacted curriculum – what is enacted as shaped by the resources available, the experiences and expertise of teachers and others, their interpretation of what was intended, their values and the range of situational factors that shape students' experiences.

Experienced curriculum – what students experience when they engage with what was intended through what is enacted, and how they learn through that experiencing, even that which is unintended by those who plan and enact the curriculum.

Pedagogy – the kind of guidance provided to assist students' learning, in the form of teacherly engagements, and information resources, learning support and interactions. This includes promoting learner agency.

Personal epistemologies – the bases by which individuals come to construe and construct knowledge from what they experience, including their interests, intentionalities and subjectivities, which shape how they engage with the process of learning.

Acknowledgements

It is important to acknowledge the contributions to this fellowship from the six participating universities (Flinders, Griffith, La Trobe, James Cook, Murdoch and Newcastle), the co-coordinators in those universities (Heather Smigiel, Ceri Macleod, David Spencer, Lisa Westcott, Rick Cummings, Stephen Crump and Ginna Caddies), the project leaders in the 20 projects that comprised this fellowship. These are: at Flinders: Linda Sweet, Penny Clark, John Oliphant, Chris Fanning and Damien Mills; at Griffith: Michael Balfour, Sarah Woodland, Susan Forde, Michael Meadows, Zoe Rathus and Jeff Giddings; at La Trobe: John Benson, Vaughan Prain and Karen Dodd; at James Cook: Ryan Daniel, Helen McDonald, Angela Hill, Pierre Benckendorff and Anna Blackman; at Murdoch: Jo-Anne Maire, Kate Fitch, David Holloway and Gareth Lee; and at Newcastle: Christine Yap, Nathan Scott and Willy Sher. Finally, thanks to Lainie Groundwater for her support for the project, its coordinators and participants.

Program outcomes and impacts

Intended outcomes

This fellowship sought to identify and appraise curriculum and pedagogic principles and practices for integrating learning experiences in practice and university settings. This includes aligning those bases to particular kinds of learning (eg conceptual procedural and dispositional outcomes). The goals were realised through three phases of fellowship activities. Firstly, it identified the kinds of curriculum and pedagogic bases that support effective work integrated learning within higher education, through prompting, sponsoring and engaging with 20 projects across a range of disciplines in six Australian universities. Curriculum, here, means the kinds of learning experiences in practice settings and higher education institutions and how they are organised, sequenced and enacted. Pedagogy, here, refers to the kinds of guidance provided to assist students' learning, in the form of teacherly engagements, and information resources, learning support and interactions, including promoting learner agency. Secondly, through the projects the fellowship sought to appraise these curriculum and pedagogic bases in terms of their particular educational worth in developing the kinds of knowledge graduates need to work effectively in their selected occupations. Thirdly, it aimed to align particular kinds of curriculum and pedagogic contributions with particular kinds of learning outcomes. Through these phases of activities, it was intended that the organisation and enactment of learning experiences within higher education can be more carefully directed to secure effective integration of students' learning experiences.

Aims and questions

The fellowship aimed to generate an applicable curriculum and pedagogy of practice, whose development was guided by the following questions:

> *What combination of curriculum and pedagogic practices will secure rich integration of learning experiences in academic and practice settings?*
>
> *How are these best enacted before, during and after practice-based experience to secure the most effective outcomes?*
>
> *What particular curriculum and pedagogic practices are aligned to secure instances of 'hard to learn' conceptual, procedural and dispositional knowledge required for effective occupational practice?*

These questions have informed the design of the fellowship, how it has been enacted and how its findings have been reported.

Approach and methodology

The approach adopted in the fellowship sought to address the three sets of concerns identified above in a practical and focused program of teaching development in the six participating universities. These universities were James Cook, Newcastle, La Trobe, Flinders, Murdoch and the host institution, Griffith. The initial phase comprised a review of literature including that about practices adopted in higher education. This served to identify the kinds of curriculum and pedagogic practices that had been or are being used to organise and integrate experiences across educational institutions and practice settings. For instance, the various models of structuring these experiences, (eg sandwich, block release, post-program experiences), and the kinds of pedagogic practices that have been used to assist their effective integration, were catalogued and appraised for their potential application to utilising and integrating students' learning experiences in practice settings. These models and practices were advanced as practical premises for commencing developmental activities with participating staff, and as potential guides for the three or four projects in each participating university. This process was

enhanced by accessing literature from and engaging with European, Australian and North American traditions of promoting learning through practice.

In the second phase, the educational worth of these curriculum and pedagogic practices were appraised in terms of: i) the kinds of learning which these experiences are most likely to be generate; ii) how they can be used with best effect; and iii) to what kinds of educational purposes are they best suited. This appraisal was undertaken through prompting, sponsoring and engaging with the 20 projects across the six universities, who each nominated three or four projects for this purpose (see Table 1 below). The focus of each project was chosen by the team members, often emerging from particular concerns or issues they had encountered in the teaching of courses that included practice -based experiences. This process of engagement, and the range of projects across a wide variety of disciplines, provided a focused and purposeful (ie informed and well-aligned) basis for understanding the particular contributions of curriculum and pedagogic practices in supporting effective integration of work integrated learning within Australian higher education.

The third and final phase comprised appraising the worth of the findings from the 20 projects to other areas of teaching. This included how the educational requirements of particular kinds of higher education programs can best be supported by curriculum and pedagogic principles identified through the fellowship activities. The participating universities, the academic areas that hosted the projects and the names of participant researchers are summarised in Table 1 below. These projects comprise the core of the fellowship activities. As noted in this table, two of the participating universities nominated a fourth area and project that added further diversity and richness to the fellowship activities.

Table 1: Participating universities, projects, participants and disciplinary focus

University	Teaching area	Teaching area	Teaching area	
Griffith	Law (Rathus/Giddings)	Journalism (Meadows/Forde)	Applied Theatre (Balfour)	
James Cook	Creative Arts (Daniel)	Education (Hill/McDonald)	Business (Benckendorff/Blackman)	
Newcastle	Business/Commerce (Yap)	Music (Scott)	Engineering (Sher)	
La Trobe	Health Sciences (Dodd)	Education (Prain)	Communication & Arts (Benson)	
Flinders	Social Work (Clarke/Oliphant)	International Tourism (Fanning)	Business (Mills)	Medicine (Sweet)
Murdoch	Chiropractic (Maire)	Business (Holloway)	Engineering (Lee)	Public Relations (Fitch)

As can be seen in the table, the fields of study comprising these projects are broadly representative of the range of disciplines from the social, physical and health sciences that are to be found in contemporary comprehensive Australian universities. To provide just a little more information about each project, the titles of the projects are presented in Table 2, and are elaborated upon in Annex A (Project information and contact sheet) and Annex B (National Teaching Fellowship Forum booklet).

Table 2: Teams, disciplines and project titles

Team (Discipline)	Title
Ryan Daniel (Creative Arts)	Careers, career development and creative arts students: An investigation of the impact of theory on practice
Pierre Benckendorff and Anna Blackman (Business)	Learning and Earning: What do business students learn from part-time employment?
Helen McDonald & Angela Hill (Education)	Navigating new identities: Indigenous teacher aides moving to pre-service teacher status
Christine Yap (Business/Commerce)	Embedding work-integrated learning in the Business curriculum
Nathan Scott (Drama/Music)	Preparing Creative Artists for the Creative Industries: Helping Musicians Cope with a Range of Work Environments
Willy Sher (Engineering)	Faculty of Engineering and Built Environment students' views about their industrial experience / work-integrated learning.
Karen Dodd (Allied Health)	Professional Placement Preparation Program for Entry-Level Prosthetics and Orthotics and Podiatry Students
Vaughan Prain (Education)	Enhancing developmental coherence in a teacher preparation program
John Benson (Communication)	The Debrief
Penny Clark (Social Work)	Preparing International Social Work Students for Practice
Chris Fanning (International Tourism)	Flinders Tourism Work Integrated Learning Program – evaluating learning outcomes
Damien Mills (Accountancy)	Developing a WIL curriculum and pedagogy at Flinders Business School
Linda Sweet (Medicine)	Integrating workplace based learning and continuity through the first clinical year of the graduate entry medical program
Jo Anne Maire (Chiropractic)	Influence of an Overseas Clinical Placement on the Acquisition of Cultural Competence in Chiropractic Students
David Holloway (Accounting)	BUS2011 Work Based Business Learning – Murdoch Business School
Gareth Lee (Engineering	A web-based tool for mediating interaction with industrially-based engineering internship students
Kate Fitch (Public Relations)	Developing professionals: Student experiences of a real-client project
Susan Forde & Michael Meadows (Journalism)	The impact of co-operative peer reflection on the integration of work integrated learning into journalism education
Michael Balfour & Sarah Woodland (Applied Theatre)	Developing the capacities of applied theatre students to be critically reflective learner-practitioners
Zoe Rathus & Jeff Giddings (Law)	Integrating and Sequencing Clinical Insights and Experiences Across the Law Curriculum

Across the three phases of the fellowship, the engagement with and involvement of the participating universities was central to the enactment of its activities, and the degree to which the findings of the 20 projects could be utilised. Consequently, it is necessary to briefly outline how the participation of the universities and their staff progressed.

To take part in the fellowship, each participating university was asked to:

- identify three teaching areas, and projects from those areas
- nominate a coordinator
- promote active engagement in the process of appraising, understanding and building ideas about how work integrated learning should proceed in each of these teaching areas during the fellowship
- be willing to support the trialing and appraising approaches to support integrating practice-based experiences before, during and after the experiences

- engage with other participating universities and staff to share projects and findings to understand better how these experiences might develop the kinds of learning outcomes required for specific teaching areas
- disseminate the outcomes to other teaching areas
- collaborate in disseminating findings to practitioner and scholarly audiences (ie published outputs).

In all, a large number of university staff, students and others who directly participated in the fellowship program, or its associated projects. These participants include the 36 members who are directly involved in projects, the five coordinators at each of the universities, the more-than 800 students who were involved in different ways in the projects, and over 80 other participants (ie practitioners, employers, university staff) who were involved in the projects, meaning that over 1000 individuals associated with higher education provision were involved in some way with the projects. When those who attended the symposium organised at each of the participating universities are included, this meant that over 1200 people associated with higher education provision engaged directly with the fellowship activities, as set out in Appendix Four.

It is noteworthy that some of the key bases for the institutional involvement for participating in this fellowship were established at an event in October 2008, when representatives from the six universities participated in a two-day event focused on work integrated learning and sponsored by the Innovative Research University group (IRUA), of which they are all members. The collegiality and goodwill developed at that event led to an interest in and commitment to take part in this fellowship. This earlier engagement is worth mentioning because some of the key premises that underpinned the process through which the fellowship progressed, were an openness to share, and collegiate engagement and participation in the program, which were established at and flowed from that event.

The progress of the fellowship activities was also very much founded in the participants' i) selecting and developing their own projects, guided by the fellow; ii) engaging in activities (ie visits, workshops, video conferences) with him; and iii) shared engagements within each participating university and across all universities, participants and projects. In all, the key fellowship events included:

- the development of approaches to implement and improve work integrated learning arrangements in each of the projects
- sharing findings with other IRUA universities progressively, through video conferences and materials
- each project working with the fellow over a 12 month period through visits and engagements
- organising dissemination activities, including a symposium held in the final phase, within each of the participating universities
- all projects and participants engaging in a two-day dialogue forum (ie presenting, sharing and discussing findings) in Brisbane and
- disseminating the findings across the participants' areas of professional practice.

Cumulatively, these events assisted in developing productive working relationships between the fellow and the participants and amongst the participants and projects within each institution and, in many cases, across institutions. For instance, some of the participants have gone on to work together on other projects.

Project description and reporting

As the 20 projects were the main activities of the fellowship, their initiation, form and development were central to achieving the fellowship's goals. Consequently, the projects had to be designed in ways that directed their efforts to be consistent with these goals, yet provided the flexibility for participants to undertake their own projects in relatively unconstrained ways. A key device for shaping the project activities was the development and utilisation of a project description template and then, after the practical enquiries had been completed, a template to guide the reporting from each project. Pressing the participants into preparing a description of the project through the template encouraged them to focus on and specify: i) the particular teaching and learning problem they were seeking to address; and ii) how they were seeking to respond to that problem within their project. These descriptions, collated into a single document and disseminated to all participants, provided a helpful resource (see Annex A, Project information and contact sheet). In a similar way, a template was also developed and distributed to participants to describe and report their projects' findings. The template was designed to assist participants address the kinds of issues that were the focus of the fellowship, and to ensure that there were some bases for compatibility and comparability across each of the descriptions and the reports.

The fellow provided advice about the purposes and criteria of reports as follows:

1. The report will provide a resource for other participants to engage with understanding your work and developing the curriculum and pedagogic principles and practices at the forum.
2. The report will be helpful in your reflecting upon and advancing findings from your project.
3. The report will be a resource that will be used by the fellow and the two international experts following the meeting to draw out ideas and synthesise findings.
4. The report will provide a tracking process from which you may wish to go on and produce chapters and articles.

The consolidated reports from the project generated as a result of this process are found in Annex B (NTF Forum booklet). The organisation of these documents through the templates was important for three reasons. The participants were working in six universities distributed across five Australian states. Hence, firstly, it was helpful to have a framework that was clear and could be followed by participants largely working independently. Secondly, it was essential to have the focus of the fellowship activities and intended outcomes as key elements of these documents. Thirdly, the use of common headings helped the progression of projects through the alignment of their activities, considerations of their data and the generation of findings for each of projects and their combined contributions.

Using and advancing knowledge

The fellowship drew upon distinct bodies of literature and knowledge. These included theories associated with constructivist learning perspectives, cultural psychology, curriculum, pedagogy and also personal epistemologies. These theories were selected because of the need to understand and account for contributions to students' learning arising from both the physical and social settings in which they act and learn, as well as the person-dependent processes that shaped that learning. Given the strong emphasis on curriculum, applicable concepts were also required here. In particular, considerations of curriculum as something which is organised to achieve intended purposes and to account for particular interests (the intended curriculum); implemented by teachers through the particular learning

experiences they select for their students (the enacted curriculum); and also how students respond to, construct and learn from these experiences (ie the experienced curriculum) were all necessary. Underpinning the selection and use of these concepts is a primary concern about student learning.

Moreover, the concepts adopted for this fellowship drew upon four specific forms of the fellow's previous research: i) into learning in and for work; ii) into the requirements for occupational practice (ie working knowledge); iii) on the contributions of an individual's agency in work integrated learning arrangements; and iv) conceptions of ordering pedagogic and curriculum arrangements to secure effective learning. Together, these bodies of knowledge were drawn on in the fellowship to shape its enactment.

Key contributions

From this fellowship, five key contributions to knowledge emerge.

Firstly, from the findings, it is clear that the concept of the integration of learning experiences needs to go beyond a consideration of the physical and social settings in which students participate, to include the personal processes of experiencing and reconciliation of what is experienced by the learners in each of the settings.

Secondly, although curriculum and pedagogy are often seen as core constituents in the provision of learning experiences, we need to add to this duo a consideration of students' personal epistemologies. Without consideration of the ways in which students engage with and learn from the experiences provided for them (ie curriculum) and the pedagogic practices that are enacted, our consideration of these core explanatory concepts fail to fully inform.

Thirdly, merely providing practice-based experiences for students is insufficient to achieve the kinds of learning required to secure smooth transitions to practice, and the development of effective and critically-oriented professional practitioners. Instead, there is a need to enrich those experiences through preparation, engagement and opportunities to share and reconcile what has been contributed by these experiences.

Fourthly, and following from the above, the findings highlight the importance of enacting the kinds of pedagogic practices that are most likely to develop engaged and critical practitioners. They are likely to be those that permit: i) the articulation and critical appraisal of concepts, and their reconciliation or transformation through this discussion; ii) opportunities to use specific procedures, iii) consideration of their applications and limitations and iv) understanding how these procedures come together to shape more strategic accounts of knowledge in use to address complex problems, and v) an appraisal of the kinds of dispositions that shape that practice in operation.

Fifthly, the need to engage, prepare and extend students as active and agentic learners is central to the effective integration of experiences across practice and higher education settings, their ability to engage in professional practice and their becoming effective critical and reflexive practitioners.

The premises for claiming these contributions are elaborated across the following sections, commencing with a discussion about the nature of the integration of learning experiences and how they might be conceptualised and best progressed.

Conceptual clarification: integration of experiences

The integration of students' learning experiences across academic and practice settings is currently of considerable interest within the higher education sectors of a number of countries, and Australia is far from an exception here. Much of this interest is driven by an increased emphasis on higher education programs with specific occupational focuses and the associated expectation that graduates will move smoothly into effective practice in their selected occupations (Department of Innovation, 2008; Universities Australia, 2008). These imperatives are now driving an increasing number of higher education students to participate in authentic professional practice activities as part of their courses or programs, for instance in the so called foundation degrees in the United Kingdom and through work integrated learning (WIL) arrangements in Australia. These practice-based experiences are referred to under a range of titles: teaching practicums, clinical placements, industry placements, internships etc. Of course, many of these arrangements have long been part of higher education provision in programs such as in medical, nurse and teacher education programs.

Yet, these kind of practice-based experiences are now being more extensively requested, required and enacted across a much wider range of higher education programs. Consequently, much effort and many resources are being expended to secure these experiences for university students far more generally. Beyond providing student access to experiences in practice settings, there is a need for the learning arising from these experiences to be effectively integrated with what students are learning elsewhere in their programs. This goal likely requires making explicit to students the links between what is learnt through experiences in both settings, because these may not always be apparent. Indeed, it is unlikely that smooth transitions and effective practice will be realised without students making such links, because being able to make associations between experiences in the two settings will likely provide important contributions to learning the knowledge required for effective practice. Moreover, the allocation of both institutional resources, on the part of the university, and personal resources, on the part of students, will not be optimised unless the contributions of both settings are effectively engaged with and integrated.

There are few available explanatory accounts about what constitutes such integrations, and how they might best be realised in higher education (Eames & Coll, 2010). With limited advice available to university-based educators and administrators about what comprises the learning process behind such integrations, it is difficult to be confident about the kinds of curriculum and pedagogic practices that should be selected and enacted to secure these integrations for particular educational purposes (Grollman & Tutschner, 2006; Stenstrom et al., 2006). There are, of course, a number of ways in which the integration of learning experiences across academic and practice settings might be considered and realised by drawing on existing conceptions and theories of learning. Well-traded terms such as transfer and adaptability provide a basis to explain the integration process. Yet, the particular emphasis here on students' negotiating two distinct kinds of social settings suggests a need to include a consideration of both physical and social settings, as well as students' cognitive processes. Yet, there are quite distinct conceptions of this process, with one set of distinctions being between those that privilege the social or personal contributions to their learning.

For instance, one view is to consider the characteristics and potential contributions of both physical and social aspects of academic and practice settings, to capture their separate contributions to students' learning, and then reconcile their combined contributions against what needs to be learnt for the target occupational practice. That is, curriculum developers would need to identify how each setting can

contribute to realising the particular educational goals and then construct the curriculum and pedagogic means to utilise and integrate such contributions as directed towards those goals. In this approach, the settings are viewed as objective entities that have particular qualities and are able to provide students with access to particular forms of knowledge.

A second approach is to privilege students as active constructors of their knowledge in each setting, and who thus play a significant role in the task of integrating what has been experienced (and learnt) in both settings. In this approach, the students' process of 'experiencing' is emphasised and seen in terms of how they subjectively construe and construct knowledge from what they experience in and across the two settings. A third way, which is the one adopted to inform this fellowship, is a combination of both of these. This approach recognises the duality between the contributions of the physical and social settings and how individuals construe what is learnt. In this way, it constitutes a socio-personal conception of the integration of these experiences. This explanation of integration includes a consideration of what each of the two environments can potentially and should afford students, yet also how students do, can and should engage in, learn through, and integrate these experiences, albeit in personally distinct ways. Consequently, a socio-personal explanatory account is offered here to elaborate what constitutes these integrations and to inform how they might be most effectively promoted in higher education.

Integration as shaped by socio-personal factors

The physical and social environments in which students engage and experience are important starting points for considering the integration of learning experiences intentionally provided in academic and practice settings, because these are not merely neutral environments in which activities occur. Instead, these settings play a role in shaping students' thinking, acting and learning and, in particular ways because they provide access to particular experiences from which they may learn (Billett, 1998; Brown, Collins, & Duguid, 1989; Greeno, 1989). As the goal-directed activities individuals engage in, by degree, shape their cognition (Rogoff & Lave, 1984), the particular activities in which students engage, in both practice and higher education settings, will likely have particular cognitive consequences. This is because the intended goals and the contributions engaged with shape their learning. Hence, because academic and practice settings afford students quite different kinds of activities and interactions, particular kinds of learning can potentially arise from experiences in both settings. Therefore, in considering how an integration of experiences across the academic and practice settings can be understood, it is useful to view each of the settings as physical and social environments that afford students particular kinds of experiences from which they construct knowledge (ie learn). Likely, elements of all three forms of the knowledge required for work performance: conceptual, procedural and dispositional, will develop from experiences in each setting. Hence, although conceptual knowledge, which comprises facts, concepts and propositions, is often aligned with theory, there is little evidence to suggest that this kind of knowledge is restricted to being learnt through educational settings alone.

Importantly, then, the development of these forms of knowledge is not restricted to what is being taught in academic settings (Rogoff & Lave, 1984; Scribner, 1984), as they arise in both kinds of settings. It is likely that much of the lower levels of conceptual knowledge – facts and concepts – and deeper forms of understanding – characterised by rich associations and links – will be learnt through engagement in activities outside of intentional learning experiences within education institutions (Billett, 2009a; Newman, Griffin, & Cole, 1984). The process of engaging in activities and using a range of related concepts can lead to understanding the associations amongst them. Indeed, it is the repertoire of experiences that individuals enjoy through engaging in practice settings that leads to rich associations between ideas

that are central to higher order conceptual knowledge of the kinds required for effective performance in work tasks. For instance, what is referred to as deep conceptual knowledge is characterised by links and associations amongst concepts and these most likely arise through the kinds of experiences that occur over time, and through activities that provide opportunities for establishing causal and other kinds of links (Roth & Roychoudhury, 1993). Thus, experiences in practice settings, such as engaging in goal-directed activities, monitoring performance and appraising activities are likely to be generative of this kind of knowledge. So, proposing that theory (ie conceptual knowledge) or higher order conceptual knowledge arises only from engagement in academic settings is erroneous and unhelpful.

An alternative starting point in conceptualising the process of engaging and integrating experiences across academic and practice settings is to consider integration from the learners' perspectives. This conception accepts and emphasises humans as active constructors of their knowledge, as they make meaning from their experiences. It, therefore, acknowledges that there can be no guarantee that what is afforded students by a particular academic or practice setting will be appropriated or 'taken up' by them (Luria, 1976) in anything like the way intended. Students may accept or reject what is suggested to them (Hodges, 1998), or their construals and constructions of what has been suggested may be partial or incomplete, or they might simply misconstrue the contribution of the setting. Importantly, in such a view, learners are now placed at the centre of considerations for realising the integration of learning across settings. That is, how students engage with what is provided in both settings and then seek to reconcile, reject or ignore the contributions from elsewhere will shape how they go about integrating their experiences. Hence, this account of the personal acknowledges that students' prior or pre-mediate experiences (Valsiner & van der Veer, 2000) and how that knowledge, and their ways of knowing, come to shape what and how they learn from what they experience in the two settings. This includes how they elect to reconcile what they experiences across both settings. Also, more than just personal histories, students' capacities, knowledge of particular discourses and interests all shape how and with what degree of intentionality and effort they will engage in these settings and reconcile what they have learnt from each.

This view of integrations emphasises the important role that individuals have in constructing knowledge, and that these processes are ultimately, by degree, person-dependent. For instance, how students engage in interactions and activities in both settings will shape the potential for the development of rich conceptual knowledge and the formation of associations between concepts and propositions that are so central to the development of expert practice (Chi, Feltovich, & Glaser, 1981; Ericsson & Lehmann, 1996). This development is not the kind that will automatically occur from a particular form of teaching. Hence, it is through the level and effort of students' engagement in their thinking and acting that these higher forms of learning occur (Roth & Roychoudhury, 1993). Similarly, with procedural development, the degree by which individuals elect to practice, monitor and seek to develop their procedural capacities is shaped very much by personal factors (Anderson, 1993). And, perhaps it is here that the importance of students' dispositions becomes most evident. Individuals' construction of knowledge is more than a cold cognitive process – a visceral reaction to stimuli. Instead, this construction is shaped by individuals' interests and emotions (Perkins, 1997; Tobias, 1994). It follows that issues that are central to individuals' well-being, their interests, and their sense of self, are more likely to be engaged with effortfully than activities they regard as being uninteresting and of little worth. So, personal interest and intentionality play out strongly in the constructive process discussed here. Effortful engagement will likely lead to a richer learning experience and stronger development than uninterested participation in activities, no matter how potentially rich (Perkins, Jay, & Tishman, 1993). Another

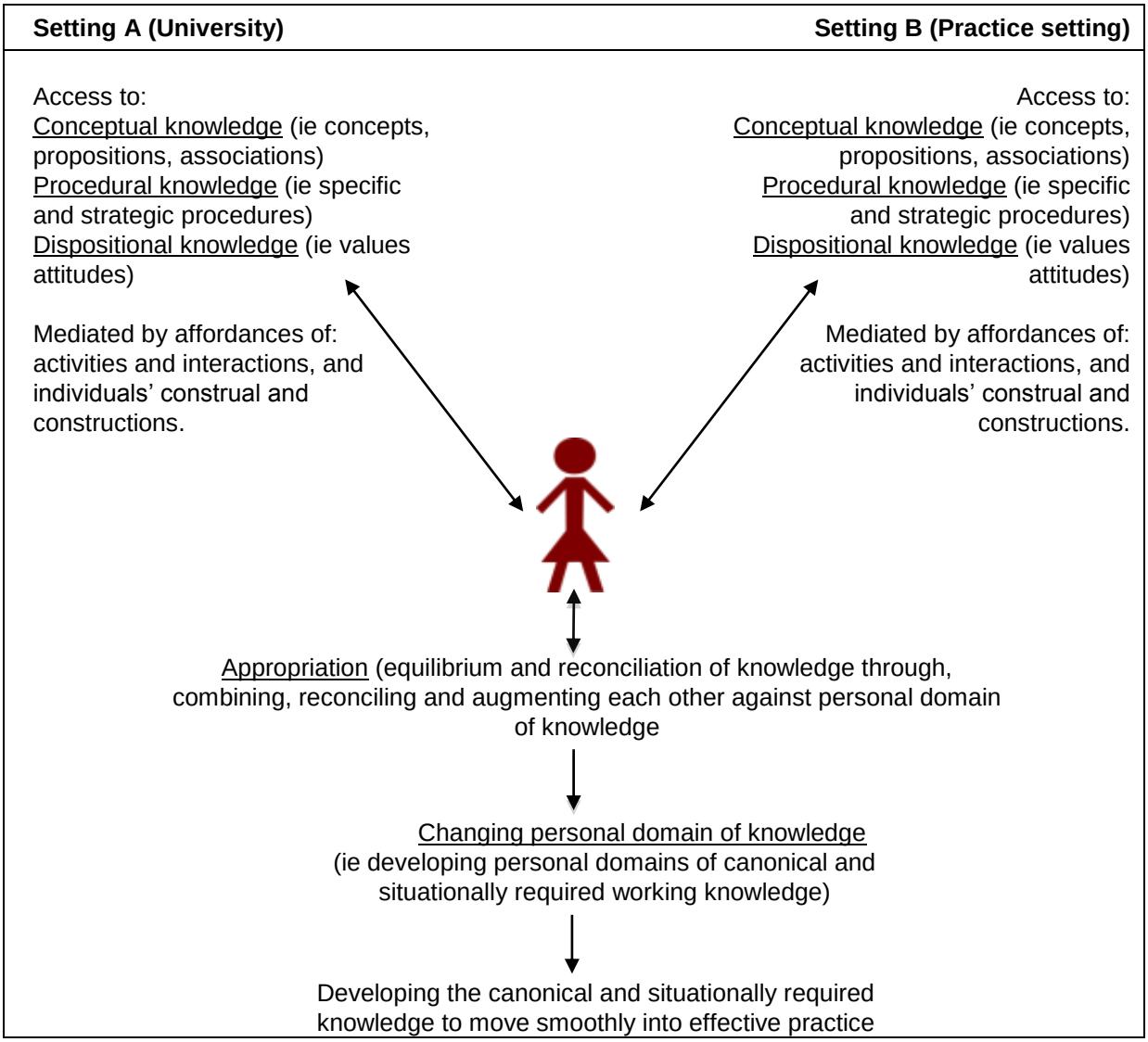
factor to be considered in this conception of integration is students' readiness: what they know and therefore, can construe from what they experience.

Moreover, a consideration of personal contributions also extends to brute factors such as weariness, alertness, fatigue and tiredness (Billett, 2009a). These factors shape how individuals engage with, and construe and construct from, what they experience. It also extends to the range and number of concepts that students are asked to engage with and reconcile, and what may or may not constitute an overwhelming experience. Just as the social world is unable to project its message uniformly and unambiguously, so too students' construal and construction of that message is shaped by personal bases through which they construct knowledge: their ways of knowing. Yet, despite what has been advanced above, the fact that students need to construe and construct from the contributions of both these settings suggests that, alone, a purely personal perspective provides an incomplete account of how students engage with, construct knowledge from and integrate experiences across the two kinds of settings. Considerations of the social settings and brute factors are also required.

It follows from the perspectives above that a fuller explanation of how learning experiences are integrated necessitates accounting for both the settings that afford particular kinds of contributions (ie activities and interactions), and how higher education students utilise their knowledge in engaging in these experiences and, then, integrating them through socio-personal processes (see Figure 1). At one level, this explanation seeks to account for the diversity of experiences afforded students in different kinds of work or practice settings, and university programs, and their diverse constructions of what was experienced. What for one student might be a highly inviting and engaging experience, for another might be uninviting and not of interest or worthy of engaging. The kinds of activities that students are invited to participate in might be new and interesting for some of them, but very familiar, and possibly uninteresting for others. For example, student nurses who have had a range of clinical roles (as enrolled nurses, nursing assistants etc) might view what they are being taught about clinical practice as common sense. Equally, the affordances of social settings, such as support offered by more experienced workers, might be greatly welcomed by some students, and seen as unhelpful interfering by others.

In Figure 1, it is proposed that the two environments potentially provide access to conceptual, procedural and dispositional forms of knowledge as mediated by both the affordances of each setting and how students construe and construct that knowledge. The process of appropriation (Luria, 1976) or making knowledge one's own, comprises that process of reconciling the contributions from the two different settings. This process of reconciliation, in turn, leads to changes in an individual's personal domain of knowledge, which, if appropriately directed, can constitute both the canonical and situational variations of knowledge required for effective occupational practice.

Figure 1: Socio-personal account of integration



Yet, in all of this, the process by which individuals construe and construct knowledge is premised upon what they know (ie their cognitive experience) and have experienced (ie their pre-mediate experience) (Valsiner, 2000). It is impossible, therefore, to confidently predict how and what individuals construe and construct from what they experience, let alone how they integrate those experiences. There is a need for higher education students engaged in programs developing occupational knowledge to learn from the expertise of more informed social partners (ie teachers, co-workers). Such experts have knowledge which is well honed, is drawn from sources that have arisen through history, has been proven effective over time, and has evolved through enhancements and embellishments in responding to the requirements for practice. Certainly, it is not helpful to insist that students engage in the epistemological adventures of Robinson Crusoe – making it all up themselves – when coming to learn about nursing, engineering, or medicine and so on. Instead, their learning processes need to engage with and secure understandings, procedures and values that have arisen over time, having been shaped by what is effective and informed by considered enquiry. Hence, students need to engage with and remake canonical knowledge through an active process of understanding, developing capacities and dispositions that have often taken generations of practice to develop. Importantly, while being in part reproductive, the process of both individual learning and the remaking of this knowledge also needs to comprise

students' active and critical engagement.

This remaking may well arise when students apply historically-derived knowledge selectively and appropriately in their practices, not merely reproduce what they have learnt through their educational program. However, their capacity to critically engage and reflect on that knowledge is just the kind of attribute required of effective professional practitioners who are likely to engage in largely personally regulated development. While all of these considerations emphasise the importance of students' agency and its role in constructing the knowledge to be learnt, they also acknowledge that guidance by more experienced partners in their construction of that knowledge is required.

Hence, an explanation of the integration of experiences by students needs to account for interactions between the contributions of the personal and the settings in which they engage in activities and interactions, (including those provided by more expert counterparts), through which students come to make associations and reconciliations between what they know and what they experience. It is through such engagements that students will come to make links and reconcile what they have learnt in both settings, including making judgments about the worth of that learning. These kind of processes and outcomes are most likely to generate not only the kinds of knowledge required to practice, but also the rich associations amongst them that are important for effective practice as well as the ongoing development and refinement of knowledge. In particular, rather than higher education programs being concerned with developing critical perspectives per se, they should be concerned with developing personal qualities associated with being agentic, critical and reflexive within a domain of activities in which students are learning.

Ultimately, a key distinction of professional or competent practitioners is their capacity to monitor their own performance, self regulate their development and sustain their competence premised on their capacities as agentic learners. Yet, this quality cannot always be assumed to arise through their efforts and intentionality. Hence, as Schutz (1970) advises, rather than presuming the links and reconciliations that students make will be optimal, it is better to support and guide them in that learning. It follows from these considerations that there is a need to consider the curriculum, pedagogy and the personal epistemology required to support those integrations. All of this guides the importance of considering both the contributions of what is intended by institutions and others, as well by the students themselves.

Taking these ideas forward, the next section reports the findings that arose from the 20 projects. It commences by providing some key overall key findings, then elaborates those pertaining to the intended and enacted curriculum and those considering curriculum as something experienced. Following this, those findings pertaining to pedagogic practices before, during and after the practice experiences are discussed.

Key findings

The findings from the 20 projects were set out, reviewed and considered against the focuses for the inquiry (ie curriculum, pedagogy, personal epistemologies) and categorised in ways that informed those focuses. From this analysis, a range of findings was identified. The key findings about learning outcomes associated with integrating practice experiences identified through these projects include:

- the development of students' occupational capacities (ie procedural, conceptual and dispositional) arose through engagement in practice-based activities
- different kinds of activities (eg placement, project, shadowing) led to distinct kinds of learning outcomes for these students

- building of students' confidence to engage in their selected occupations can arise through practice-based experiences
- experiences in practice settings assist students learn more about their selected occupation
- transformation of students' personal perspectives can arise through practice-based experiences and opportunities to reflect upon them
- informed insights into the world of work and work practices arise through engagement
- the importance of engaging with practice as part of occupational preparation.

The key findings about learning processes associated with integrating experiences in practice settings identified through the projects include:

- just having workplace experiences alone is insufficient for effective student learning
- the importance of engagements with students that: prepare (ie before; for example, briefing), support (ie during; for example, sharing, guidance) and assist them to connect the two sets of experiences (ie after; for example, focus groups, critical reflective sessions)
- readiness of students (ie interest, realism, preparedness) is a key factor to their learning
- students' diverse prior experiences shape their engagement and learning in person-dependent ways
- providing and managing experiences for students who are 'time jealous' is an emerging challenge
- diversity of educators' conceptions of the worth and competence with practice experiences
- beyond supervised placements, options such as students' paid part-time work and observations of work might provide a useful resource of experiences
- centrality of the 'experienced curriculum': how students construe and engage in practice settings and integrate experiences
- incremental experience and progression preferred (ie a series of experiences being built upon, different levels of support over time)
- importance of aligning all participants' (ie students, staff, industry partners) understandings of purposes of WIL and its processes
- integrating insights from practice into broader curriculum using WIL as a platform
- preparing students for workplace expectations is essential.

In the following sections, the findings of the projects are aggregated and ordered under four distinct categories:

1. The kinds of educational processes that need to be considered when organising and guiding the development of the intended curriculum.
2. Principles associated with the effective enactment of the curriculum, which include experiences in practice settings.
3. Pedagogic practices that might be enacted before, during and after students have engaged in practice-based experiences.
4. The engagement and development of students' personal epistemologies in ways that are effective in supporting their learning.

Curriculum intentions, enactment and experiences

The intentional organisation of experiences for higher education students, and how those experiences are enacted and then engaged with by students, is central to understanding how the provision of work integrated learning might best progress. In the following section, findings from across the projects are discussed.

Intended curriculum

The intended curriculum is exactly that: what is intended to occur and also be achieved (ie knowledge learnt) through enacting the curriculum. Consequently, it tends to focus on the kinds of educational goals to be realised, the means of achieving those goals in terms of the organisation of experiences as well as the kind of content that needs to be learnt by students. In consideration of the integration of students' experiences from both practice and university settings, and the findings from the projects reported here, the following can be concluded about the kinds of principles and practices associated with intended curriculum.

Key considerations for the intended curriculum

In summary, some of the key considerations associated with the intended curriculum to support work integrated learning comprise:

- being clear about what needs to be learnt (ie the intended learning outcomes) in order to identify what experiences are likely to secure that learning
- aligning the kinds of experiences provided for students with the intended learning outcomes
- organising a gradual and staged engagement with practice-based experiences seems to suit many educational purposes
- aligning the duration of particular experiences with their educational purpose (eg orientation versus skill development)
- acknowledging practice settings as providing experiences to understand the requirements of practice, not merely places to practice, and taking this into consideration when sequencing experiences in academic and practice settings
- intentionally sequencing preparatory experiences and opportunities to consolidate and reconcile learning after practice experiences into the curriculum.

Consequently, key concerns for the intended curriculum are: the kinds of educational goals to be achieved (ie being clear about what students are intended to learn), the means of achieving those goals in terms of the organisation of experiences, and the kind of content that needs to be learnt. In consideration of the integration of students' experiences from both practice and university settings, and the findings from the projects reported here, the following principles and practices associated with the intended curriculum are proposed. These propositions commence with statements about the educational purposes of engaging in integrating these experiences.

Educational purposes

The selection of educational purposes is central to any intentional program or intervention that aims to secure particular kinds of learning. Certainly, given the complexity of its undertaking, consideration when planning work integrated learning programs include the kinds of intended learning outcomes or aims and goals that are supposed to be realised through these experiences. Yet, the educational goals for work integrated learning can be quite diverse, being associated with:

- learning about an occupation
- learning about some of the various forms of that occupation
- extending the knowledge learnt in university settings

- orienting to the kinds of places where the occupation is practiced
- building the occupational capacities (ie the canonical, conceptual, procedural and dispositional) required to be an effective practitioner of that occupation
- developing occupationally specific forms of knowledge and procedures required for particular practice settings
- developing more broadly applicable learning that is not restricted to the requirements of a particular setting
- meeting requirements of occupational or professional licensing.

This listing of educational purposes is useful for considering the particular kinds of educational intent that are attempting to be achieved through university programs, and it also indicates that quite distinct approaches and educational processes are likely to be required to achieve these purposes. For instance, the processes that support learning about the occupation, perhaps through opportunities to observe or engage peripherally, are very different from those that aim to develop the occupational-specific capacities required to effectively practice within one or across a range of instances of that practice. These differences in intents have implications that extend to the duration and sequencing of experiences and the kinds of activities and interactions that students would be required to access. Moreover, these general statements of purpose (ie goals) can also be used to detail the more specific learning outcomes required and which guide both instruction and assessment (ie educational objectives). For instance, healthcare professionals might need to learn about a range of types of dressings and conditions under which each of these types of dressings would be used to heal a range of wounds, injuries etc. Whereas goals and aims are likely to be most helpful in organising the structuring of the experiences for students (ie sequencing, duration, timing, engagement), more detailed statements of purpose in the form of objectives are likely to be very helpful for specifically enriching experience for particular purposes (ie pedagogy). These goals are not only helpful for higher education institutions and teachers to organise learning experiences for their students, they are also useful in selecting how and for what purpose practice-based experiences need to be organised for and structured within the overall course provisions. They can also inform individuals in practice settings (ie supervisors, skilled practitioners, clinical supervisors, preceptors) about the requirements, expectations and outcomes that are desired to be realised through students' experiences. Perhaps not surprisingly, it is those working within higher education institutions that will likely need to take the lead on these kinds of matters.

Moreover, having clear statements of intent can also be helpful for informing students about what it is expected that they will learn through these experiences, and how they will understand the goals for that learning, to assist them direct their efforts towards that learning and those learning goals. So, clear and detailed statements of intent are helpful for advising all of those who are engaged in these programs, (ie teachers, students, workplace supervisors and mentors), about what students are supposed to achieve through their engagement in these experiences. Certainly, as the reach of the educational project that comprises so many higher education programs now extends into settings beyond the higher education institutions, and where learning support is provided by others than those who teach in the academy, it is even more important for the expectations of and requirements for these programs be clearly articulated in ways that are comprehensible for that widening audience. Table 3 below is an attempt to align the educational purposes outlined above with considerations for curriculum and pedagogy that are intended to realise these different kinds of purposes.

Table 3: Matrix of purposes and processes

Educational purpose	Curriculum					Pedagogy		
	Timing and sequencing	Duration	Organisation	Engagement	Kinds of experiences	Before	During	After
Learning about the occupation	Early in the university program	Short, long enough to observe	Access to variations of practice	Observation and participation in peripheral tasks	Observation and opportunity to experience the occupation	Understanding requirements for appropriate engagement and occupational norms & practices	Guidance by experts, opportunity to ask questions & understand further	Opportunity to reflect upon the occupation and how it meets expectations & preferences
Learning about variations of that occupation	After some initial experience of the occupation	Short, long enough to observe and listen	Access to variations of practice	Opportunities to engage across workplaces and also with other workers	Access to a range of work settings	Basing experience on what individuals know and seek to know through these visits	Guidance by expert partners to delineate differences and distinctions in occupational practices	Opportunity to reflect upon variations in occupational practice and be advised about particular requirements
Extending the knowledge learnt in university settings	During or after this knowledge has been imparted	Possibly short, but well focused engagements	Pathways of experience used to make explicit the applicability of knowledge learnt	Effortful engagement to assist the application of knowledge to novel circumstances	Engagement in authentic workplace activities of different kinds	Consideration of the applicability of the occupational knowledge to the settings	Guidance by more expert partner who will press students to make links to what was learnt in the academy	Focus group activities for students to share and compare experiences and their applicability to the occupation
Orientations to the settings where the occupation is practiced	Early in the university program	Long enough to observe a range of work settings	Rotation through a range of workplaces to understand how practice is enacted	Engaging student in their developing understandings about these activities	Rotation through a range of workplaces to understand how the occupation is practiced	Setting out the opportunity and support for understanding work practice, ahead of real experiencing	Actively seeking to compare and contrast across occupational settings	Organising process of comparing and contrasting students' experiences
Building the occupational capacities required to be an effective practitioner	Building upon some initial experience	Longer periods of engaging in range of workplace activities	Progressively longer periods of practice and more demanding tasks during those periods	Engaging in a range of authentic activities, initially guided by more expert partner	Provision of access to authentic work practices and engagement in appropriate level tasks.	Advising and guiding students to understand the kinds of knowledge to be learnt	Opportunities to practice, engage with kinds of knowledge required for effective practice.	Opportunities to reflect and share with others about their experiences and making these generative of robust occupational knowledge

Developing occupationally specific forms of knowledge required for particular practice settings	After a period of experience in the practicum setting	Long enough to engage with current work activities and develop specific knowledge	Engagement in diverse forms of the same occupational practice and opportunities to share and compare	Engagement in activities and opportunities to observe and model	Over some period of time to understand the requirements of practice	Understand distinct requirements in each workplace and how these are different across work settings	Opportunity to understand and develop procedural capacities associated with particular work settings.	Opportunity to reflect and share with peers the commonalities and differences among practice settings, and requirements to be effective
Meeting requirements of occupational or professional licensing	Gradual engagement and building capacity cross program	Adequate enough to build capacities and understanding	Built into program to develop required capacities	Increasingly engaging in activities reflecting occupational requirements	Gradual engagement and rotation through different kinds of settings and experiences	Being explicit about the kinds of knowledge to be learnt and how it will be learnt	Opportunities for indirect and direct guidance in building capacitors	Reflecting upon what has been learnt and comparing and sharing with others in relation to required standards

The point made in this table (whilst largely illustrative) is that, in terms of curriculum, particular combinations of timing, sequencing, duration and organisation, and kinds of practice-based experiences are likely to be required to realise each of these educational purposes. Similarly, particular pedagogic practices before, during and after those experiences are likely to be needed, to support students' securing each of these purposes. The key point being made here is that it is necessary to consider the alignments amongst what is intended to be learnt, the ways learning experiences can be organised (ie curriculum), and how these experiences can be enriched (ie pedagogy) to secure that learning.

In reporting these findings a convention has been adopted of using square brackets to identify the project from which the data supporting the finding was drawn – eg [Forde & Meadows]. When two or more projects are used, a semi-colon is used to separate the sources – eg [Balfour; Halliday; Maire].

Enacted curriculum

The enacted curriculum is that which is implemented by teachers in academic settings or provided through experiences in practice settings when is intended for students is enacted. Often, the enacted curriculum is very much shaped by what is available in terms of teachers' expertise, resources available, and readiness of students.

In summary, some of the key considerations identified by the 20 projects for enacting the provision of and integrating practice-based experiences within the enacted curriculum are:

- teachers' interest in learning in practice settings, and their capability to enact the effective integration, are likely to profoundly effect and shape the experiences that are enacted
- these capabilities may extend to coaching and assisting students to reconcile their experiences
- teachers' knowledge of and engagement with practice settings beyond the university are also likely influence how they enact experiences for their students, including communications with those settings
- the availability of resources, and access to practice-based settings, will determine the range of possible experiences for students
- there may well be a need to augment or maximise the available opportunities (eg in regional settings)
- the level of supervision needs to balance managing potential harm with securing students' learning
- the need to consider options other than supervised placements to secure intended educational purposes, including students' paid part-time work, their professional employment, opportunities for observation, shadowing etc
- students' readiness (eg interest, capacities, confidence) needs to be accounted for when enacting particular kinds of experiences
- the likely need to organise orientations before students engage in practice settings, utilise opportunities for support during practice-based experiences, and provide interludes for sharing and reflections after them
- additional or specific experiences may be required for particular student cohorts (eg overseas students)
- the gradual and staged enactment of experiences in practice settings seems well aligned to building confidence, capacities and interest.

The interest and expertise, even contacts, possessed by teachers are all likely to have a profound effect upon the ways in which practice-based experiences are

enacted within university courses. One project [Mills] questioned the readiness of teaching staff. This included the levels of their understanding about providing these experiences, and their capacities to effectively enact and fully utilise students' experiences in practice settings. This concern is about the. For instance, university teachers may now be expected to become life-coaches for students [Benson]. Then, teaching staff may be in areas where there is no tradition of providing or utilising practice based experiences or being familiar with efforts to integrate those experience. Hence, even if they welcome it and do not require being persuaded of its worth, they may lack the capacities to enact effective integrating experiences [Mills]. In addition, teachers' capacities to engage with workplaces with different levels of expertise [Fitch], and their ability to support productive experiences, suggest that the enactment of the intended curriculum will be shaped by these kinds of factors. Certainly, it seems that the capacity to effectively utilise authentic experiences in practice settings in ways that can generate changes in perceptions and values [Maire – eg cultural competence), can engage students with the requirements of existing practice [Scott], and transform their conceptions of the professional practice [Giddings & Rathus], are all shaped by higher education teachers able to provide and enact experiences that can effectively secure these kinds of educational outcomes.

The availability and utilisation of resources will also shape what can be enacted to secure effective integrations of learning experiences. As different kinds of experiences lead to different kinds of learning [Fanning], it is important to be able to provide particular kinds of experiences. Yet, these may or may not be available in the particular location, or in ways that are available to students. Hence, the kinds of experiences that are available shapes what can be enacted. For instance, higher education institutions located in regional centres may have access to a different and potentially more limited set of work experience options than their counterparts in capital cities. Then, there are some programs that require very high levels of student monitoring and supervision in practice settings (such as in education and health), and the availability of and access to this kind of experience may be limited or constrained, such as only being available for short periods of time. While this kind of access might be useful for orientations to the work, or work site, it may be far less helpful when students need extended practice to develop procedural capacities.

Consequently, it is important to consider the range of potential resources and options for securing particular kinds of practice experience (the available curriculum), which need to be extended beyond the kinds that are most obvious. Indeed, beyond institutionally organised practice arrangements, a range of options exist. One of these is utilising students' existing work. Where appropriate, this can provide a useful set of experiences to draw upon [eg Holloway; Benckendorff; Hill & McDonald; Holloway] and, as such, can be used as part of the enacted curriculum. For instance, students might be asked to reflect upon their paid work experience, in which most of them are engaged [eg Benckendorff 85 per cent; Sher 75 per cent, Scott], in terms of either general educational goals, occupational-specific goals or educational process goals. For general educational goals, considerations of communications, organisation, and engagement in their paid work might be used to identify learning outcomes which have broad applicability. Occupational-specific outcomes might focus on how the particular occupational-specific goals for their courses are being played out in this part-time work. For instance, conceptions and critical appraisals of how the occupation is being practiced, the kinds of skills being deployed in their exercise, how work is organised and enacted, and how it engages with others, including clients. To take an example, business students engaged in paid part-time work might be asked to critique the processes of workplace supervision, workplace communication, the organisation of work, processes of advertising, recruitment, rewards and so on. That is, students might use their

experiences in their current paid part-time work to develop understandings and procedural capacities associated with their specific occupational practice. Utilising this kind of experience also addresses engaging 'time-jealous' students in additional work-related experiences, which may come with other costs and be viewed as an imposition by the students. However, careful planning, including the use of pedagogic practices to get students to effectively utilise such experience are likely to be required. This includes the teacher understanding and being sympathetic to the use of such experiences. Also, there are clear limits to the effectiveness and applicability of these experiences, as the kind and form of engagement may be quite distinct from when students engage in a supervised work placement.

Students' understandings, capacities and agency will have an impact upon what is enacted. For instance, students' diverse backgrounds and competence means that the enactment of the curriculum needs to account for these differences. Instead of starting with what the course intends, it may be more helpful to commence with drawing on the students' experiences and, where available, their knowledge from, and of, practice settings, and then engaging with the content to be taught from those experiences, ie putting the experienced curriculum centre stage [Holloway]. In one project, a special set of experiences was organised for international students so they could understand more about the social welfare system and agencies, and also Australian colloquialisms. An additional set of tutorials was provided for these students to learn about the local social and occupational context through reflecting upon their experiences, including those practice-based experiences within the social work sector [Clark & Oliphant].

The degree of agency exercised by students is likely to be essential for the enactment of learning experiences per se, but perhaps never more than when they are engaged in learning experiences in practice settings away from the guidance of their teachers [eg Daniel]. For instance, where students are capable and willing to initiate related work activities for experiential learning purposes [Scott], the enactment of the curriculum can occur in quite different ways from when students are hesitant and reluctant. Yet, this agency may not be present or understood by students [Fitch]. Therefore, efforts to emphasise, nurture and develop it might need to be considered as part of the enactment of the curriculum. Certainly, the value of authentic experiences is unlikely to be realised unless students' engage with those experiences, and are reflexive in what they learn through them [Fitch].

This consideration of the role of the students in the enacted curriculum leads well into the consideration of curriculum as something experienced by students.

Curriculum as experienced by students

Ultimately, learning within higher education is something undertaken by individual students and this learning arises from how they construe and construct what they experience and how they elect to engage with that experience [eg Hill & McDonald; Prain; Forde & Meadows; Fitch]. Also, because the process of learning is mediated by individuals in these ways, the qualities and extent of that learning will be shaped by students' engagement with what is enacted. Consequently, considerations of planning and enacting students' engagement in, and integration of, experiences across academic and practice settings need to account for how students experience and respond to what is provided for them: the experienced curriculum.

Indeed, both the intended curriculum and also what is enacted need to take account of how students are likely to experience what is provided for them. Within all of this, it is also helpful to consider matters of student readiness, interest and confidence as being central concept associated with work integrated learning. This is because so many of the activities and interactions in which students engage are beyond the reach of the teacher and the university, and will be largely subject to the energy,

commitment and intentionality of students as learners, that is: their personal epistemologies.

In sum, some key issues associated with the experienced curriculum are:

- students' interest is central to the quality of their engagement and learning in practice settings, and reconciling this learning within the course of study
- the level of their readiness will shape students' responses to the sequencing, duration and rotation of experiences in practice settings, and how they come to reconcile those experiences within their university course
- the level of readiness is most evident when there are conflicts or contrary demands between workplace and university requirements
- different kinds of readiness have particular implications for students' learning (eg international students' lack of knowledge about social, institutional and local practices, domestic students' naïveté and idealisation of their selected occupations)
- a lack of readiness to participate effectively in practice settings for both domestic and international students was reported across some projects
- the need to view issues associated with readiness as a duality comprising i) the students' experience; and ii) the requirements of the workplace and academic institution
- immediate and pressing concerns such as performing adequately in a forthcoming practice setting experience is likely to be the focus of students' interest
- identifying premises for students' interest and engagement are likely to be quite salient for enacting and realising effective learning outcomes in practice settings
- students' confidence likely mediates their engagement in practice settings
- early and staged engagement in practice settings seems to boost many students' confidence to re-engage and learn effectively
- challenges to personal confidence and sense of competence through practice-based experiences can be redressed by effective group processes, including sharing of experiences.

The level of readiness for students participating actively in practice settings was identified in the fellowship as being premised on their knowledge of the occupation, the workplace, the work undertaken and their capacities to understand and/or engage in that practice. For instance, international students learning about social work in Australia know less about institutional, social and personal circumstances with which they are required to be knowledgeable [Clark & Oliphant], than their domestic counterparts. However, domestic journalism students engaging in media companies also were often found to lack readiness in the form of awareness about their particular social setting [Benson; Forde & Meadows]. Sometimes, participation in the work practice can be a confronting and conflictual experience, and/or anticipated support and guidance may be absent [Fitch]. Hence, not being aware of being unready for such experiences can be highly confronting. Students may also have to contend with conflicting demands between the practice setting and university [Yap]. Another dimension of readiness is the frequency by which students are confronted with wholly new experiences, which are required to be understood and integrated with what students already know. Too many novel experiences can prove to be overwhelming for learners, who will not be ready for such experiences [Sweet; Hill & McDonald].

As rehearsed above, the agency of students will be central to the quality of their participation and learning, yet this has been found to be quite variable across

student cohorts [Daniel; Fitch; Scott]. Even the most authentic and rich learning setting and experience will be considerably weakened should students not engage effectively and effortfully. However, across the projects, with a few exceptions, it seemed that students were interested, and even eager, to engage in practice settings [eg Scott; Forde & Meadows]. This interest is important, given the students' need to participate in practice settings and the effortful process of reflecting upon those experiences and integrating (ie reconciling) them with what they have experienced elsewhere and in a critical and informed way. All this requires significant effortful engagement on the part of learners that is unlikely to be forthcoming unless the motivation or interest to do so is high. For instance, immediate concerns most often direct students' effort and engagement [Dodd; Daniels; Prain; Sweet]. Therefore, what might be important to and enacted by their teacher, or intended in the curriculum, may be quite different from what directs students' energies and intentionalities.

Not surprisingly, engaging in, and, in particular, being asked to perform in an environment that is new and uncertain raises issues about students' confidence and how they will engage in those tasks and settings. Whilst a key outcome of engaging in practice settings has been shown to be the development of personal confidence in a number of fellowship projects [Yap; Scott; Maire], the fact that this has been raised as an important finding indicates it represents a challenge for some and perhaps many students. This confidence can also be undermined when it is not clear what is being expected of the student [Fitch]. As noted, a difficult issue that students will likely face is difference between the requirements and demands of the practice setting and university. How students reconcile these differences is likely to depend in part upon their confidence, but also in part upon what they know about how to deal with such a situation.

In these ways, issues associated with how students experience curriculum need to be considered in both the planning and the enactment of experiences for students. Moreover, these issues are at the centre of the kinds of pedagogic practices which are likely to be required to assist students with their learning. Consequently, having considered issues of the intended curriculum, the enactment of the curriculum and its experiencing, it is appropriate now to consider the kinds of pedagogic practices which can be used to enrich these experiences.

Pedagogic practices

Beyond the organisation of experiences for students in both the university and practice setting, there is a need to augment and enrich those experiences to maximise, direct and extend students' learning that arises from them. This includes directing the learning in particular ways. For instance, as advised above, there are likely to be particular strengths and limitations to learning in both higher education and practice settings. Hence, there is a need to identify, select and utilise particular pedagogic practices both in the university setting and, potentially, also in the practice setting, to both maximise the learning from these settings and to overcome limitations from each. There was clear agreement across a number of projects that, more than providing experiences for students, there is a need to enrich these experiences by: i) preparing students for the experiences, strengthening their engagement and finding ways of collective reflection on those experiences [eg Fitch; Hill & McDonald]; ii) considering the variations and variability of workplace experiences through students' different and diverse internship experiences; and iii) by participation in a post-internship peer reflective session [eg Forde & Meadows]. However, a key consideration for this fellowship has been that any pedagogic strategies identified and appraised should be of a kind that are readily applicable to, and able to be implemented by, busy academics as they perform their teaching

roles. That is, the fellowship aimed not to promote the kinds of strategies that require extensive infrastructure to implement and support. These arrangements are hard to find institutional sponsorship for and sustain over any length of time. Instead, the concern here has been to identify and promote pedagogic practices which can be enacted in relatively easy ways and which bring a return to both the students and the teachers in terms of learning.

Hence, what follows are some propositions that can be enacted within the normal conduct of academic teaching work. Given this imperative, and the particular focus of integrating experiences in both workplace and university settings, these practices are organised under three headings. These are: what might be provided before, during and after students engage in practice-based experiences of different kinds (eg practicum, clinical placement, work experience, paid part-time work etc). More than being a convenient organising scheme, this division acknowledges that there are interventions which might best occur before students engage with experiences in practice settings for educational purposes, that these students may require some support in or augmentation of those experiences during their time in practice settings and that they may well need guidance and support to effectively reflect upon, share and otherwise maximise the outcomes of those experiences after they have occurred. It is these three considerations that are discussed in the following section.

Prior to engaging in practice experiences

Before the practice experience, it is likely to be helpful to engage with students to:

- orientate them to the requirements for effectively engaging in the workplace
- establish bases for experiences in practice settings, including developing or identifying capacities required for practice settings (ie practice-based curriculum, interactions)
- clarify expectations about purposes of, support in, and responsibilities of parties in practice settings etc (ie goals for learning, how to engage)
- inform about purposes, roles, and expectations of different parties (eg advance organisers)
- inform about and prepare students to engage as agentic learners (ie develop their personal epistemologies), including the importance of their observations, and engagement in the workplace interactions, and activities through which they will learn
- if required, develop the procedural capacities required to be effective with tasks in the practice setting
- prepare them for contestations that might arise in the practice setting (eg being advised to forget everything learnt at university).

There was clear agreement across a number of projects that, more than merely providing or getting students to engage in activities in practice settings, there is a need to enrich their experiences through preparatory experiences [eg Fitch; Hill & McDonald]. These preparatory processes were reported to be of greatest value by students when they:

i) come before the first practicum experience
ii) are strongly focused on discipline-specific information and procedures, rather than content which they perceive to be irrelevant or untimely
iii) use their time effectively
iv) draw upon their existing experience
v) provide opportunities for developing procedural capacities (ie how to do things) [Dodd].

Even practical information such as briefing students on how to act, how to dress, their expected attitude towards work and others in the workplace, all contribute to increasing the chance that their internship learning outcomes would be positive [Forde & Meadows]. Where appropriate, these preparations can be extended to the use of action planning, simulations [Balfour &Woodland]. Also, the use of substitute activities is helpful to develop students' capacities to perform effectively [Giddings & Rathus] and to prepare them for particular kinds of engagements or interactions in their practice settings.

More generally, pedagogic activities such as these can be used to assist students' orientation to the particular industry sector in which they hope to find employment. For instance, in one project, the students developed an industry research portfolio to help them engage with and understand the sector while still in university. This was adjudged by graduates as being helpful in assisting their transition to work, in this case in the creative industries [Daniel]. Moreover, students are likely to have their own views about what would most effectively prepare them for their practicum. In a project with medical students, group discussion of a case was replaced, on request from the students, with a problem-based learning approach, in which the case was presented, and the group of participating students given time to consider the information, reflect, and pose possible diagnoses, problems and management strategies [Sweet]. This approach to extending their learning was seen by the students as a useful way of developing procedural capacities, including those associated with combining a series of procedures and, thereby, building the capacity for more strategic kinds of development. This included being able to utilise and combine a range of specific knowledge to consider the overall complexities of patients' conditions, and possible scenarios for treatment.

Yet, one key factor was that students' needs are often focused on whether they will perform effectively in practice environments. In particular, if they are to perform as novice professionals (to have hands on patients, for instance), they have concerns about ways in which they may be effective. Indeed, key concerns associated with establishing effective learning experiences for students include developing awareness of and the capacities to be effective within those settings. There is clearly a range of capacities that students will require to engage in practice settings; the extent to which this development is required in each instance depends largely on the roles in which they will be engaged in the practice setting. There will of course be significant differences between the capacities required by students who are engaged in observing and being oriented to a workplace and by those who are actively engaged in the occupational practice. Both of these kinds of experiences are necessary and helpful. For instance, insights about effective day-to-day practices that enable students to understand and rehearse professional skills for the classroom were greatly valued [Prain; Benson] and assisted raising awareness of the need for them to have both procedural and conceptual capacities [Giddings & Rathus]. Assistance with understanding the requirements for performance, particularly when students are new to these requirements, were perceived to be very helpful. Certainly, and following from this, procedural preparation (ie having the capacity to undertake occupational tasks) was also highly valued by students, when this preparation was directed at preparing them for their practice requirements [Prain].

Therefore, preparation that enriches both understanding the occupational practice as well as being able to perform aspects of that practice (ie specific procedural knowledge) is clearly welcomed as appropriate when it has identified applicability to students' upcoming practice. It is likely that other capacities may also need some consideration. For instance, it was found that not all students have the level or kind of inter-personal skills to manage effective client or workplace relations [Fitch] and negotiate workplace experiences and opportunities [Benson]. Consequently, some

consideration of these capacities might need to be addressed before students are placed in situations where having these capacities will be essential for an effective engagement. Also, as noted, student confidence is also associated with being able to perform these kinds of skills. Therefore, it may be necessary to build or support students' confidence, so that they have the capacity to be effective, productive and competent in their workplace experiences [Benson]. In some settings, such as nursing, practice laboratories are used to develop specific procedures such as injections, inserting stets, taking temperatures and making other observations about the patient. The kinds of procedures that might well be developed as much as possible before students engage with workplace activities are typically those involving people, as in the case of nursing.

In addition, it is necessary for students to be aware of the boundaries of what is reasonable and unreasonable for them to be engaged in. This is very important because of the growing diversity of students' background and prior experiences of work, and occupational practice prior to engaging in their work placements [Clark & Oliphant]. Conversely, students may be overly hasty and avoid engaging in effective preparatory activities because they do not believe this is important [Fanning]. Without these understandings, it may be far more difficult for them to achieve the kind of outcomes that are intended to arise from their workplace experience, and to effectively manage themselves and their relationships in the host organisations.

There is also another kind of preparation that is required to assist students in their practice-based experiences. Unfortunately, workplaces are often far from benign environments and are usually focused on the production and service goals for which they exist. Hence, students may encounter experiences which can be confronting and unpleasant, including direct contestations. These kinds of events cannot be predicted and, in most instances, factors that lead to negative experiences are out of the control of university staff [Forde & Meadows]. Therefore, it may be useful to engage students in scenarios where they may confront belligerence, individuals being dismissive, or treating them inappropriately. Having some strategies to deal with these situations may well be helpful not only in the short term, but also in the longer term as these events are not restricted to students' experiences. In a previous project, learning circles were used for human services students (Cartmel 2011) to prepare them for these kinds of contestations. That is, the students met and discussed these matters before their placements and then took the opportunity to reflect on any such experiences as part of a supportive group.

Consequently, it is necessary to consider preparing students for such environments. Firstly, some workplaces can be very difficult to engage with and may not always have appropriate expertise [Fitch], let alone capacity to support productive experiences. Hence, students need to be prepared to be active and enquiring, and to determine in what ways they should best engage in a particular workplace. Secondly, there can be conflicting demands/requirements between those of the workplace and university [Yap], which students are asked to confront. Students need ways of considering and dealing with these issues in order to respond appropriately and in ways which are helpful for their progress and development. Thirdly, students might be advised that the experiencing of the environment, including contestations, may play out in quite individual or personal ways. What is a productive and worthwhile work experience to one individual may be quite unhelpful to another. Hence, students need to understand that how they make sense of and respond to particular experiences will be shaped very much by their goals and purposes. Other examples suggested here include using role plays [Prain], explicit strategies to make links between what students have already learnt and the requirements for their practice [Balfour & Woodland], and students developing and engaging in 'reading circles' for this purpose [Balfour & Woodland].

Another important consideration for pedagogic practice is how best to constructively engage 'time-jealous' students in considering how to maximise their practice-based experiences. Across the projects, it was found that in many instances students really valued their time and only wanted to engage in experiences which were immediately relevant and pertinent to their current or forthcoming activities. Some ways they suggested that these experiences could be made most useful for them are by:

i) providing opportunities for students who have completed placements to talk to and advise students who have not
ii) making the sessions interactive
iii) using electronic means to provide the course content
iv) having more opportunities for discussion
v) providing notes and materials that students could refer to later
vi) explaining more clearly the purposes of the sessions and their practical applications [Dodd].

In these ways, providing preparatory experiences of different kinds will likely be helpful in assisting the practice-based experience to be more effective. Noteworthy here is that many of these experiences are not just about providing students with information, although that is most welcome when students want to know facts, such as the requirements for their practice experiences. Rather, the students emphasised having the opportunity to discuss and consider various scenarios that may affect the quality of the learning experiences. Moreover, experiences at this point in the process provide bases for shared and collaborative activities during and after the experiences in practice settings.

During practice-based experiences

From the findings across the 20 projects, it is apparent that the effective integration during practice-based experiences was better supported if there was:

- direct guidance by more experienced practitioners (ie proximal guidance)
- sequencing and combinations of activities (ie 'learning curriculum', practice-based curriculum)
- active engagement in pedagogically rich work activities or interactions (eg handovers)
- effective peer interactions (ie students' collaborative learning)
- active and purposeful engagement by the students as learners in workplace settings.

As indicated, across a number of projects, engagement in authentic work-based experiences is held to be generative of a range of learning outcomes, including the transformation of perspectives [eg Giddings & Rathus; Maire]. These experiences engage students in activities which allow them to see and experience the practices they are learning about being enacted, exemplified, and understood. Moreover, if the focus is on developing occupational specific capacities, the experiences provide opportunities for engaging in activities and interactions in practice settings through which students develop further the understandings and procedural competence required to perform effectively in their work. As has been noted already it was found that different kinds and variations of these experiences led to different kinds of learning outcomes [Fanning]. In many instances, students' access to authentic experiences has to be organised by the institution, yet in others they have to organise this themselves, for instance in contemporary music [Scott]. In some instances, their engagement has to be carefully supervised and monitored, and in others, the students have to be self-regulated. Then, there are other situations, in which students are either engaged in work related to their studies as part of their

employment, or as in paid part-time work which may or may not be in the occupation that they are studying.

Despite their different and distinct contributions, practicum experiences can benefit from, and will often need, enhancing through pedagogic means.. Some of the reasons for this need are that these experiences can be mixed, incomplete, inappropriate, or lead to ineffective learning outcomes. As noted, it is not necessary or helpful for students to engage in wholly independent learning. Engaging with expert partners can provide access to the knowledge required for effective work activities, while engaging with peers can make explicit and open to elaboration the concepts and procedures that are still immature. Moreover, these experiences are very difficult for those teaching or managing courses in educational institutions to effectively control: they cannot be pre-specified or predetermined. Some pedagogic means will ordinarily be provided through the workplace, but this might need to be engaged with differently for the learning potential of the experiences to be fully realised. Alternatively, pedagogic means might be introduced as part of the practicum experience activities which are intentionally directed towards enriching students' learning. Across the projects, a number of such pedagogic strategies were trialled and evaluated. These included the use of case based discussion groups [Forde & Meadows]; student-led peer learning; group problem solving and integration across medical disciplines [Sweet]; having seminars across the semester that focus on the work the students are undertaking, and reflective learning logs focusing critically on those activities [Holloway]; and weekly meetings to integrate the two sets of experiences [Holloway]. Finally, students need to be aware of the learning potential of their practice-based experiences, such as the value of practice to develop, refine and hone procedures, and to develop richly interlinked conceptual bases [Giddings & Rathus].

Wherever possible, students might also be encouraged, or it might be organised for them, to engage with more experienced workers. Such direct engagement can provide access to experts who explain concepts and processes and demonstrate procedures effectively. However, these experiences are not always available [Sweet]. Contributions of practitioners (eg classroom teachers, nurses, doctors) are likely to be a growing influence on student learning in lengthy practicums [Prain] and the more universal application of extensive work-based experiences of students. Consequently, consideration needs to be given to the ways that this influence might be shaped or organised to meet the required educational goals.

Hence, students might need to identify such experts and engage with them either directly or indirectly as they undertake their work. In addition, when students are uncertain or unsure about how to proceed, it might be helpful for them to have a nominated expert from whom they can seek advice and guidance [Hill & McDonald]. Yet, it has been found that the quality of guidance and feedback differs in terms of content and style [Sweet]. So, it may be necessary to have access to peer support within the workplace setting, or with other students, and opportunities for discussing and sharing when students return to their university.

As noted above, the willingness of students to be agentic learners, that is, to 'participate in, negotiate and learn', and to engage with the opportunities offered to them [Fitch] will be central to what they are able to learn through their participation in workplace settings. The more motivated, directed and intentional the students' engagement, the more likely the learning outcomes will be richer, because the constructive process is stronger. However, it may be necessary to advise, prepare, support and prompt students to be active learners. For instance, in one project, it was seen that students' capacities to be active listeners – being aware of the need to engage and understand others' perspectives – was a key skill that they needed to develop for both their learning process and also for their professional practice

[Giddings & Rathus]. Across the projects, it was frequently the immediacy of concerns that directed students' full engagement. That is, students are likely only to be engaged in activities that they view as offering them capacities to address immediate concerns, such as impending requirements for effective practice [Prain; Dodd]. It might also be helpful to make students aware of longer term strategic goals, and purposes for which their engagement and learning in practice settings might be directed.

In these ways, providing supportive experiences of different kinds during the students' engagement in practice settings will assist in making their practice-based experience more effective.

After experiences in practice settings

The findings of many of the 20 projects that focused on students' experiences were that after practice-based experiences, it is helpful to:

- facilitate the sharing and drawing out of students' experiences (ie an opportunity for articulating and comparing the commonalities and distinctiveness that leads to understanding the canonical and situational requirements for practice)
- explicitly make links to, and reconciliations between, what is taught (learnt) in the academy, and what is experienced in practice settings
- emphasise the agentic and selective qualities of students' learning through practice (ie personal epistemologies)
- generate in students critical perspectives on work and learning processes.

As noted, more than providing practice-based experiences for students, there is a need to enrich these experiences by finding ways of assisting students to understand, reconcile and engage in collective reflection. One of the few documented approaches that seek to actively reconcile students' learning experiences was that used within the cooperative education movement in the United States referred to as co-op seminars (Gubb & Badway 1989). These occurred after students had completed their experiences in practice settings and returned to their colleges. In this particular approach, students came together to share and discuss their experiences, to enrich these experiences, on the basis of concerns that what they learnt should not be restricted to the setting in which it had occurred. Through such processes, a number of key educational purposes can be achieved.

Firstly, they can be used to assess the development of understanding and procedural capacities through making explicit links between students' experiences and propositional and conceptual development, and extending the applicability of the procedures that have been learnt to other circumstances. This purpose requires a reconciliation of experiences students have had and an explicit focus on their broader application. Secondly, to enrich all students, the sharing of experiences and processes that seek to identify what is common and distinct about the students' experiences can be used to help develop robust occupational knowledge in the students. Thirdly, students are likely to have had different kinds and qualities of experience. Therefore, the opportunity for the sharing of experiences is helpful for some students to realise that the problems they have faced were not unique. Others, whose experiences were trouble-free, can come to understand more about the complexity of work and workplace requirements [Forde & Meadows]. Fourthly, these experiences can be used for transformational learning; that is, as a device to explicitly engage students in reflecting upon, extending and transforming what they currently know [eg Maire; Hill & McDonald; Giddings & Rathus].

In summary, student forums or discussion groups can be used to share experiences and assist all students to benefit from the experiences of others, including even

those experiences which might be seen as being negative [Forde & Meadows]. Certainly, across a range of the projects, post-practice peer-reflective sessions emerged as a critical learning moment. At one level, they enabled students to put their experiences into a broader, pedagogical context and to connect their practical experiences with theoretical and university-based experiential learning; on another, more practical level, they enabled students to learn *something* about that particular placement that they had not been able to experience personally [Benson]. At another level they promoted richer learning. Requiring students to deliberate on their experiences, and to detail them in a written form [Scott] or articulate them to others [Maire], provided them with a richer understanding of the topic and a basis for transformative learning that probably would not have otherwise occurred. Discussion groups were also shown to be an effective way of connecting the diversity of experiences a student had encountered. The reflective session used in the chiropractic project – "a structured post-placement seminar, … engaging students in listening, debate and personal reflection" – was found to "extend and transform their understanding of chiropractic practice, and promote conceptual, procedural and dispositional development" [Maire]. Similar findings arose in the project involving law students [Giddings & Rathus].

There is also the level of engagement that acknowledges the person-dependent nature of learning. As workplace experiences are of different kinds, and lead to different kinds of learning [Fanning], it is important to have the opportunity to share these experiences so that other students can benefit from the experiences of peers. Because students' personal backgrounds and histories are so different, and may be quite remote from the circumstances in which they have practised, they may need to reconcile their experiences in order to make them educationally worthwhile. For instance, international students struggled to understand much of the language and contextual information that they faced in their practicum experiences in social work [Clark & Oliphant]. The variability of experience is enhanced by the duality that comprises such experiencing. On the one hand, there are different kinds of experiences provided for students across placements and, then, how students construe and engage in what is provided, occurs in different ways [Forde & Meadows; Fitch; Yap; Giddings & Rathus]. This means that different and distinct understandings may arise from these experiences. Also, low-achieving students may be disadvantaged (eg denied access to, and not effectively engaging, in practice-based experiences [Yap]), therefore exposing them to others' experiences can potentially be enriching. Another key purpose for sharing and drawing out students' experiences in workplace settings is that often these experiences are not benign or supportive. Consequently, it might be necessary to assist students reconcile and make more positive and constructive what they have experienced, even though they may not yet fully comprehend the value of what they have experienced.

Because students' experiences cannot be pre-specified or predicted, it is important for there to be opportunities to overcome negative experiences and inappropriate learning. So, even though factors which lead to negative or unhelpful practice-based experiences are out of the control of teachers [Forde & Meadows; Fitch], a guided reflection process can help students to refocus on their experiences in ways that can result in their having a positive impact on students [Forde & Meadows]. In addition, some workplaces may lack ways, understanding about, and bases for effectively engaging students [Fitch], so it is necessary to enhance and enrich those experiences through sharing and discussing.

Consequently, providing experiences that permit students to share, compare and contrast their experiences, and being selective about the kinds of activities required to maximise these processes and their outcomes, is likely to be helpful in assisting students move smoothly into practice, and exercise the kinds of capacities required

to sustain their work and learning in their selected occupational practice.

In all, the above curriculum and pedagogic principles and practices are held to provide some guidelines and examples of how learning experiences promoting contributions from both higher education and practice settings might be effectively integrated. While not overly prescriptive, the propositions set out above indicate that there is a need to consider how best to accommodate practice-based experiences when planning your overall curriculum, its enactment, and how it is likely to be experienced by students. In order to maximise the benefits of these experiences, it is likely to be necessary to utilise pedagogic interventions before, during and after practice-based experiences. However, what is set out above is not intended to be onerous, but manageable within the ambit of academics' teaching work.

Factors critical to success of the fellowship

Beyond the provision of funds, and the status of the National Teaching Fellowship, the key factors that were critical to the success of this fellowship were fourfold: i) engaging in productive and respectful working relationships; ii) shared interests; iii) institutional commitment; and iv) collaborative working and careful guidance. These are now briefly elaborated.

Engaging in productive and respectful working relationships

The group participants and institutions came together to support the proposal, and then the fellowship, following an event in 2008 in which interested parties from each of the six universities met to consider and discuss work integrated learning. Various evaluations reported that this event generated considerable collegiality and goodwill, and confidence in the fellow to lead such a program competently while keeping the interests of the other participants as a foremost concern. The processes used to establish, develop and progress the work of the fellowship overall, and of the projects individually, have been reported as part of the progressive evaluation by the participating universities' coordinators. They have detailed the means by which individuals willingly contributed to their projects and also the overall fellowship. It is noteworthy that although only 18 projects were initially intended, two others were later included and that all 20 projects went on to finish their work, provide reports and present their completed projects at the dialogue forum in Brisbane.

Shared interests

Those participating in the fellowship were volunteers who almost universally had an interest in, and some experience of, organising practice-based experiences for their students, as well as a commitment to integrating those experiences into the overall curriculum and improving those experiences in some way. Consequently, a key factors of the success of the fellowship was that the participants were interested and engaged in ways that were quite common and consistent. Each project was provided with funds of $3000, and many of the projects generated data and findings that might be expected of a far more generously funded arrangement. The point here is that their interest was the key motivating factor, not the small amount of funding which was there to assist and support their project. Moreover, the shared interests played out in ways that permitted collaborative engagement within each of the universities and also across the projects via teleconferences and the dialogue forum.

Institutional commitment

Having a coordinator in each university whose position reflected institutional commitment was helpful. The fact that most of the coordinators had an institutional responsibility for work integrated learning was also helpful in this regard. Moreover,

these coordinators were able to act on behalf of the participants at the institutional level and engage with them to support and coordinate their work across the period of the fellowship, and then develop strategies for dissemination. In all, this locally-based institutional commitment was an important factor in whatever successes the fellowship was able to achieve. The position of a coordinator provided the opportunity for local engagement, decision-making and leadership which is of the kind required for the work done within each of the participating universities to be taken further within that institution. Hopefully, this activity and presence have provided a basis for ongoing engagement and commitment at the institutional level. Indications to date are that there is an astute legacy arising from the fellowship.

Collaborative working and careful guidance

The strength of the collaboration was located in the intuitional commitment to and engagement in the fellowship activities which was manifested in the action of the coordinators and participants. The co-ordinators in each university (Flinders: Heather Smigiel and Ceri Macleod, LaTrobe: David Spencer, James Cook: Lisa Westcott, Murdoch: Rick Cummings, and Newcastle: Stephen Crump and Ginna Caddies) played an invaluable role of leading and supporting their institutions' projects and engaging in staff in across institution engagements. The fellow sought to work with the participants in a collaborative and supportive way that was consistent with his experience in adult education and development. That is, to respect the experience and autonomy of the learners insofar as they are able to make effective decisions and have a need to exercise autonomy in their work and learning. Interventions, in the form of either close or more distant guidance, were premised upon either direct requests, or concerns that the participant required additional support to achieve their goals. For instance, the participants had total choice in the focus for their projects as long as it met the requirements for the fellowship, one of which was that it needed to engage students in some way. A series of resources was developed for the participants and distributed to them, but, apart from the project description and reporting templates, there was no requirement or expectation that they would use them within the project. These were provided as guides and prompts and were perceived to be helpful by the participants. The mandatory project description and report templates provided the level of coherence required across the projects for advancing and reporting the fellowship's goals.

Amenability of outcomes to higher education institutions

The intention of the fellowship was to generate outcomes that are applicable in and across Australian higher education institutions. In particular, a motif referred to across the duration of the fellowship was that it was important to generate outcomes which could be used by academic staff who are already busy and have many commitments. The concern was to identify educational purposes which clearly articulated the kinds of goals that were intended to be achieved; guidelines for the development and enactment of curriculum that were both clear and applicable; and the development of pedagogic strategies that could be utilised before, during and after students' practice-based experiences. A central concern of the fellowship was consideration of what would direct and engage students in learning that was effective for them, and applicable to their courses and selected occupation.

Quite deliberately, we avoided approaches or strategies that would require significant infrastructure or resources, as these were unlikely to be supported, or be sustainable in the long term. Instead, we wanted to focus upon where we believed a difference could be made; that is, by informing busy academics how best they might design and enact experiences for their students that both utilise and integrate what they had encountered and learnt through their practice-based experiences.

Dissemination

Material generated and available

A range of materials, including resources and reports, has been developed as an integral part of the fellowship activities. Four kinds of resources were generated to advise and inform the projects. One consists of a series of one-page case studies from a range of disciplines about how other institutions have gone about organising work integrated learning activities. These case studies were distributed to the participants, and placed on websites within the participating institutions and on the fellowship's ALTC website. The other kind of resource comprises a series of short papers which provide information about particular kinds of processes that might be used to consider how best to integrate experiences across practice and educational settings. Again, these are available on the ALTC website The third form of resource comprised short discussion papers that were used to inform discussion in and around the fellowship, and in two instances these were published as articles in *Campus Review*. Fourthly, the templates used for identifying the project and for reporting findings are provided here as in Appendix Two.

There was also a progress report which described all of the projects, and participating teams in each of the six universities. This comprises Annex A. In addition, a document compiling all of the projects' reports was generated for the dialogue forum in Brisbane and this is available as Annex B.

How outcomes have been disseminated

The outcomes of the fellowship have been progressively disseminated through a number of means. The first comprises access to materials as described above. These materials are available on the fellowship website and also on several of the participating universities' websites. Secondly, as part of the dissemination strategy, the fellow held a symposium at all but one of the participating universities. At each symposium, the overall initial findings of the fellowship as well as those from each institution’s projects were disseminated.

The findings have also been disseminated through both national and international forums. These are detailed in the second report are also in Appendix Three, but comprise a set of invited presentations at universities such as Queensland University of Technology, University of Canberra, University of Geneva, Georgia State University, University of California, San Francisco, and Linköping University. In addition, the fellow has presented papers at conferences in Perth and Munich, and papers have been prepared and submitted to academic journals. One so far has been accepted by *Studies in Higher Education*.

However, the final outcomes are only now being drawn together and these will be progressively disseminated over the next few years in the form of papers and books. Moreover, additional presentations are planned for 2011 both at Australian universities and international conferences.

Evaluation

Evaluation processes

The fellowship has an inbuilt evaluation process. That is, each of the coordinators has had an active role in progressively evaluating the fellowship process and outcomes across its course. This process was led by Professor Stephen Crump (The University of Newcastle) who engaged with the coordinators in a teleconference and prepared a preliminary statement for the progress report submitted in January 2010, and the final report attached here.

Outcomes of evaluation

The outcomes of the evaluation are as presented in the report by Professor Crump.

Evaluation

Professor Stephen Crump
Pro Vice-Chancellor (External Relations)
The University of Newcastle

AIM of FELLOWSHIP:
To explore curriculum and pedagogic bases for effectively integrating practice-based experiences.

OVERVIEW:
As the Final Report by Professor Billett outlines in detail, this project brought together 6 participating universities, and a total of 20 different projects based around participant experiences of teaching courses that included practice-based components. The projects covered a very broad range of discipline areas, and of types of "WIL" experiences, so there were plenty of points of difference and of similarities for the study to draw on, analyse and explain.

METHOD OF DATA COLLECTION FOR EVALUATION:
This evaluation has been prepared from both observation data of the face-to-face workshops at the institutional level as well as with the participants as a group, as well as virtual workshops undertaken through video-conferencing at various milestones of the project. It also includes impressions and perspectives raised at a mid-term teleconference of the institutional co-ordinators, chaired by myself, with Professor Billett in attendance, excepting for the final questions. Notes from that teleconference are attached.

I was also able to independently discuss the project with most institutional co-ordinators when we met at a number of conferences, research meeting or the like, outside the ALTC fellowship context. The relatively smooth and efficient conduct of the project, and the consistent development of outcomes and activities around the project, meant that there was no need to call or conduct a special meeting of the co-ordinators outside the agreed schedules.

The participants were aware of my role as an evaluator, and I was able to distance myself a little from the project by delegating operational matters in my own institution to the UON WIL project officer. Professor Billett and myself discussed the progress of the project, and evaluation points, at various natural turning points of the project, at which I supported the progress and shift to the next stages and activities outlined in the proposal and final report.

The project ran slightly overtime, but this was due to the normal contingencies and operational issues of an undertaking of this complexity and diversity. All participants were consulted and agreed to the extended deadlines and slightly postponed final workshop.

The project Final Report provides extensive details of the activities, outcomes and underlying academic (teaching and learning) significance of the outcomes.

I have no issue with the contents of the Final Report and so it is not my intention to repeat that information in my evaluation. Instead, I wish to refer to some key activities and reflect on their import.

- The "templates" for the discipline-based activities proved very useful in getting the participants focussed on the same issues, and effective in shaping the activities that followed, so that when the participants from the 6 universities were brought together, there was a sense of common purpose and achievement, despite the significant variation in backgrounds and teaching areas.

- The delegation of responsibility for the day-to-day conduct of the project to institutional co-ordinators achieved ownership at the institutional level and freed the Fellow to provide an overarching and almost pastoral care role for the project. Whilst the funds provided to the local co-ordinators and participants were modest, they were considered sufficient, and were gratefully received as recognition of the effort provided for the ALTC.
- The success of the project is partly due to the ability of Professor Billett to attract a core of people in universities active in WIL developments, and of high standing in relation to WIL in other spheres such as the ACEN, WACE, IRU, conference speakers, research developers, etcetera, who were willing to add the ALTC project to their responsibilities. That they stayed the distance in testimony to the value of the ALTC undertaking.
- The steady flow of supporting / guiding material assisted the project build momentum and maintain motivation. Information on preparing projects, intended learning outcomes, curriculum models, considerations for pedagogy, particular pedagogic practices, and case studies, provided simple but effective material for generating touchstone for the participants as well as for Professor Billett in trying to make sense out of all the different activities, as they evolved and unfolded.
- Regular video-conferencing, and regular site visits, assisted the project stay on track and provided welcome and timely input from Professor Billett.
- The international participants were supportive of the outcomes of the project. In particular, I spoke at length with Professor Anne Edwards at the final workshop and it was clear that this project had value beyond the 6 participating institutions, providing some direction and strategies for practice elsewhere, as well as for further research and evaluation.
- The voice of the students arising from the institutional projects was not as prevalent as could have been the case, but there are necessary limitations on any project that need to be managed to enable to project to fulfil its objectives.

The general view of the participants was summarised by one of the co-ordinators who emailed Professor Billett at the end of the project:

I think, however, that most of us got more out of the Fellowship than we put in and the project staff (in his university) certainly benefitted greatly from working with you. Thanks for your commitment to the improvement of WIL at the IRU institutions, and the sector as a whole.

Areas worthy of further study focus on the views of senior officers in universities and employers. This Fellowship brought to the fore multiple amazing stories of what can be done and the benefits to students and staff, but the benefit and costs to institutions and employers remains areas that need urgent analysis than is currently unavailable.

Without internal and external support for WIL programs, many of them just won't happen, and current economic constraints (and increasing competition form VET in response to government policies) puts massive pressure on university senior officers to remain committed to WIL (there is evidence some institutions are wavering since their enthusiasm in 2009), and to employers and their ability to indirectly fund the work of higher education.

In both matters, national support and leadership is crucial.

ALTC Fellowship (Billett)
Evaluation teleconference
Monday 1st March

Participants: Stephen Billett, ALTC Project award holder; Stephen Crump, ALTC project evaluator; Rick Cummings, Ceri McLeod, Heather Smigiel, David Spence, Lisa Westacott - participating institution co-ordinators; Lainie Groundwater, project research assistant.

Thank you for participating in the teleconference on 1 March to provide some formative assessment to Stephen Billett regarding the progress of the ALTC Fellowship he was awarded in 2009. Our feedback is constructive and affirmative as well as providing some issues for Stephen to consider for the second half of the project. Key points discussed included:

AGENDA ITEM 1: topic timely / resonate?

- National projects are really useful to keep things going within our institutions, gives an extra impetus to work for WIL, for example.
- Good that this project built directly on the 2008 / 2009 IRU work because a good outcome and timely to value the work of WIL within participating uni's (helped with mapping resources etc) and especially at faculty level.
- Additional benefit was that people in ALTC participating institutions were receptive because of IRU work

AGENDA ITEM 2: project process?

- Good that the design of the Fellowship allowed the participants to choose their own project
- Co-ordinators / participants video-conferences are useful as they allow people to hear how the others are going
- Very helpful to have Lainie as liaison between institutions and to support co-ordinators
- The papers SB puts out from different projects in the Fellowship are a good tool for co-ordinators to make contact with participants more generally than about their specific topic…
- … but variable levels of engagement, though useful, how to get better use?

AGENDA ITEM 3: institutional response?

- WIL is mostly well-embedded in participating organisations though one is not going to make it a priority in new ISP and one other is only just going into the ISP.
- GFC has had an impact on how well, how much institutions see themselves as able to do WIL.

AGENDA ITEM4: Completion of project?

- How to sustain WIL (beyond the project etc)?
- Will we do some publications?
- Options for post-June conference?
- Have built good networks and friendships out of our work.

Stephen Crump
Chair of Evaluation Meeting
6th March 2010

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Appendix One – Synthesis of findings

Guidelines for practice: Integrating practice-based experiences

These guidelines aim to assist those teaching in higher education make decisions about organising and integrating their students' experiences in practice settings (ie workplaces) to assist them develop the capacities for making smooth transitions to their selected occupations upon graduation, and being effective in those roles.

The guidelines are derived from a synthesis of the findings from 20 projects across six Australian universities that sought to improve students' learning experiences through the provision of practice-based experiences. The projects comprised the ALTC National Teaching Fellowship 'Curriculum and pedagogic bases for effectively integrating practice-based experiences within higher education.'

The guidelines focus on: i) purposes for organising and integrating experiences; ii) key learning outcomes; iii) key considerations for providing practice-based experiences; iv) different ways of providing practice experiences for students; v) sets of principles and practice associated with organising those experiences (ie curriculum); and vi) enriching them (ie pedagogic practices).

1. Work integrated learning: why would you do it?

Some reasons for attempting to integrating work-based learning experiences into the higher curriculum include:

- learning about an occupation
- learning about some of the variations of that occupation
- extending the knowledge learnt in university settings
- an orientation to the kinds of places where the occupation is practiced
- building the capacities required to engage in and be an effective professional practitioner
- developing occupationally specific forms of knowledge required for particular practice settings
- meeting requirements of occupational or professional licensing.

2. Key learning outcomes

Some key learning outcomes identified through providing practice-based experiences include:

- the development of students' occupational capacities (ie procedural, conceptual and dispositional)
- different kinds of activities (eg placement, project, shadowing) led to distinct kinds of learning outcomes
- building students' confidence to engage in their selected occupations
- assisting students to learn more about their selected occupation
- transformation of students' personal perspectives
- informed insights into the world of work and work practices
- the importance of engaging with practice as part of occupational preparation.

3. Key considerations for organising students' learning experiences

The key considerations for organising learning processes associated with integrating experiences in practice settings identified through the projects include:

- having only workplace experiences is insufficient for effective student learning; they need to be augmented by teacherly interventions (ie pedagogic practices)
- the importance of engagements with students that: prepare (ie before; eg briefing), support (ie during; eg, sharing, guidance) and assist them to connect the two sets of experiences (ie after; eg, focus groups, critical reflective sessions)
- students' readiness (ie interest, realism, capacities) to engage is a key factor shaping their learning
- students' diverse prior experiences shape their engagement and learning in these processes

- providing and managing experiences for students who are 'time jealous' is an emerging challenge
- educators' conceptions of the worth and competence with practice experiences are diverse
- beyond supervised placements, options such as students' paid part-time work and observations of work might provide a useful resource of experiences
- centrality of the 'experienced curriculum': how students construe and engage in practice settings and integrate their experiences from both university and practice settings
- incremental exposure to practice-based experience and progression is preferred (ie a series of experiences being built upon, different levels of support over time)
- importance of aligning all participants' (ie students, staff, industry partners) understandings of the purposes of work integrated learning and its processes
- integrating insights from practice into the broader curriculum using WIL as a platform
- preparing students for workplace expectations is essential.

4. Options for securing practice-based experiences

Those teaching in higher education institutions need to look beyond supervised placements and include:

- students' current paid employment associated with their studies
- students' paid part-time employment
- observation of occupations being enacted (eg observing law court proceedings)
- students' prior experiences
- simulations of substitute activities

Supervised placements are essential in some circumstances, but other ways of securing instances of authentic practice are quite appropriate for others

Definitions

The following definitions aim to assist understand the concepts used here.

Curriculum – the kinds of learning experiences in practice settings and higher education institutions and how they are organised, sequenced and enacted.

Within this definition, sub-categories of curriculum are defined as follows

Intended curriculum – what is intended to occur by sponsors or developers in terms of educational goals (ie what should be learnt) and learning outcomes as a result of the curriculum being implemented.

Enacted curriculum – what is enacted as shaped by the resources available, the experiences and expertise of teachers and others, their interpretation of what was intended, their values and the range of situational factors that shape students' experiences.

Experienced curriculum – what students experience when they engage with what was intended through what is enacted, and how they learn through that experiencing, even that which is unintended by those who plan and enact the curriculum.

Pedagogy – the kind of guidance provided to assist students' learning, in the form of teacherly engagements, and information resources, learning support and interactions. This includes promoting learner agency.

Personal epistemologies – the bases by which individuals come to construe and construct knowledge from what they experience, including their interests, intentionalities and subjectivities, which shape how they engage with the process of learning.

In the two tables that follow, sets of curriculum and pedagogic practices that likely can support the effective integration of students' experiences in practice settings are presented. The first table sets out some principles for the intended, enacted and experienced curriculum. The second sets out some pedagogic practices for enhancing those experiences, before, during and after the students' practice-based experiences.

Table 1: Curriculum consideration for organising and enacting practice-based experiences, and how students might engage with them

Intended curriculum	Enacted curriculum	Experienced curriculum
Key considerations associated with the intended curriculum comprise: • being clear about what is to be learnt for identifying what experiences are likely to secure that learning • aligning the kinds of experiences provided for students with the intended learning outcomes • a gradual and staged engagement in practice-based experiences suits most educational purposes • aligning the duration of particular experiences with their educational purpose (eg orientation versus skill development) • acknowledging practice settings as providing important and worthwhile educational experiences and plan accordingly • intentionally sequencing preparatory experiences and opportunities to secure, consolidate and reconcile learning from practice experiences in the curriculum. These preparatory processes of greatest value for students when they: • come before the first practicum experience • are strongly focused on discipline-specific information and procedures, rather than content they perceive to be irrelevant or untimely • use their time effectively • draw on their existing experience • provide opportunities for developing procedural capacities (ie how to do things).	Key considerations associated with the enacted curriculum comprise: • teachers' interest in practice settings, and capability to enact effective students' experiences profoundly shape what is enacted • these capabilities may extend to coaching and assisting students to reconcile their experiences • teachers' knowledge of and engagement with practice settings influence how they enact experiences for their students • the availability of resources, and access to practice-based settings, determines the range of possible experiences for students • the need to augment or maximise the available opportunities (eg in regional settings) • the level of supervision needs to balance managing potential harm with securing students' learning • considering options other than supervised placements to secure learning experiences • accounting for students' readiness (eg interest, capacities, confidence) when enacting particular kinds of experiences • organising orientations before students engage in practice, utilise opportunities for support during practice-based experiences, and providing interludes for sharing and reflections after them • additional or specific experiences may be needed for particular student cohorts (eg overseas students) • gradual and staged enactment of experiences in practice settings are well aligned to building confidence, capacities and interest.	Some key issues associated with the experienced curriculum are: • students' interest and readiness is central to their engagement and learning in practice settings, and reconciling it with what they have learnt in their courses • the level of readiness is most evident when there are conflicts or contrary demands between workplace and university requirements • different kinds of readiness have particular implications for students' learning (eg international students' lack of knowledge about social, institutional and local practices, domestic students' naïveté and idealisation of their selected occupations) • the need to view issues associated with readiness as a duality comprising i) students' experience; and ii) the requirements of workplace and academic settings • immediate and pressing concerns such as performing adequately in practicum likely to be the focus of students' interest • students' interest and engagement are salient for enacting and realising effective learning outcomes in practice settings • students' confidence likely mediates their engagement in practice settings • early and staged engagement in practice settings boosts many students' confidence to re-engage and learn effectively • challenges to personal confidence and competence can be redressed by effective group processes, including sharing of experiences.

Table 2: Pedagogic practices that can promote the integration of experiences before, during and after students' practice-based experiences

Before practice-based experiences	During practice-based experiences	After practice-based experiences
Before the practice experience, it is helpful to engage with students to: • orientate them to the requirements for effectively engaging in the workplace • establish bases for experiences in practice settings, including developing or identifying capacities required for practice settings (ie practice-based curriculum, interactions) • clarify expectations about purposes of, support in, and responsibilities of parties in practice settings etc (ie goals for learning, how to engage) • inform about purposes, roles, and expectations of different parties • inform about and prepare students to engage as agentic learners, including the importance of their observations, and engagement in the workplace interactions, and activities through which they learn • develop any procedural capacities required for effective with tasks in the practice setting • prepare them for contestations that might arise in the practice setting	The effective integration during practice-based experiences was better supported when there is: • direct guidance by more experienced practitioners (ie proximal guidance) • sequencing and combinations of activities (ie 'learning curriculum', practice-based curriculum) • active engagement in pedagogically rich work activities or interactions (eg handovers) • effective peer interactions (ie students' collaborative learning) • active and purposeful engagement by the students as learners in workplace settings.	After practice-based experiences, it is helpful to: • facilitate the sharing and drawing out of students' experiences (ie an opportunity for comparing the commonalities and differences in requirements for practice) • explicitly make links to, and reconciliations between, what is taught (learnt) in the academy, and what is experienced in practice settings • emphasise the active and selective qualities of students' learning through practice (ie personal epistemologies) • generate in students critical perspectives on work and learning processes.

Students' personal epistemology – Developing students' capacity to actively engage in, learn from and intentionally focus on their development is central to not only maximising their learning through these educational processes, but within and throughout their professional practice. Hence, the emphasis on enacting the above pedagogic practices need to emphasise these outcomes

Appendix Two – Project description and reporting templates

Template for ALTC discipline-based activities (1-2 pages)

Title:

Purpose (problem being addressed)

What is to be achieved by integrating practice and academic experiences?

Significance
Why is this worth addressing?

Procedures
What will be enacted?

When and how this will be enacted (time lines)

Engaging others about this initiative with your university and four interventions with your professional field or discipline
Plans for internal dissemination

Four interventions in your professional field
1.
2.
3.
4.

Format for forum dialogue papers (4-5 pages)

The format for the 4-5 page paper for the forum will use the following headings

1. Title of project

2. Author(s) and affiliation(s)

3. Abstract (300 words) – try and capture succinctly what you did and found

4. Brief description of academic area (20 words max)

5. Particular purpose (i.e. goal) for WIL initiative or activity (*what is it being done and for what educational purposes?*) (500 words)

6. Process for enacting WIL (*how did you go about implementing and appraising the initiative or activity?*) (500 words)

7. Key findings (1500 words-2000) *please include key findings about curriculum and pedagogy (before during and after practicums), students' personal epistemologies*

8. Issues arising for discussion (i.e. 4-5 points) - W*hat are the key issues for curriculum and pedagogy (before during and after practicums), students' personal epistemologies (how can we better prepare and engage students)?*

References

Appendix Three – List of dissemination events

Table 1: Fellowship events and participants

Event date	Event title, Location	Brief description of the purpose of the event	Number of participants	Number of Higher	Number of other
Event date	**Event title, Location (city only)**	**Brief description of the purpose of the event**	**Number of participants**	**Number of Higher Education institutions represented**	**Number of other institutions represented**
13/07/09	Canberra	Keynote in WIL week activities	40	2	
14-16/07/09	Canberra	Workshops (X3)	65	1	
8/12/09	Sydney	Keynote	60	10	10
16/11/09	Brisbane	Talk on project	24	2	
31/3/10	Canberra	Presentation on Fellowship	35	2	
5/05/10	Perth	Fellowship symposium	16	4	
23/06/10	Brisbane	Fellowship symposium	55	5	1
11/08/10	Melbourne	Fellowship symposium	47	7	
10/08/10	Adelaide	Fellowship symposium	40	3	
8/06/10	Townsville	Fellowship symposium	56	2	
Totals			**438**		

Table 2: International presentations

Event date	Event title	Location: city and country	Brief description of participation
26/09/10	EARLI SIG	Munich, Germany	Conference participant
02/10/10	Presentation	University of Geneva, Switzerland	Invited presentation
08/10/10	Presentation	University of Georgia, United States	Invited presentation
14/10/10	Presentation	University of California, San Francisco	Invited presentation
15/10/10	Workshop	University of California, San Francisco	Invited activity
04/11/10	Presentation	Tampere, Finland	Invited presentation
09/11/10	Presentation	Linkoping, Sweden	Invited presentation

Appendix Four – Participants

Table 1: Fellowship events and participants

Event date	Event title, Location	Brief description of the purpose of the event	Number of participants	Number of Higher	Number of other
Event date	Event title, Location (city only)	Brief description of the purpose of the event	Number of participants	Number of Higher Education institutions represented	Number of other institutions represented
13/07/09	Canberra	Keynote in WIL week activities	40	2	
14-16/07/09	Canberra	Workshops (X3)	65	1	
8/12/09	Sydney	Keynote	60	10	10
16/11/09	Brisbane	Talk on project	24	2	
31/3/10	Canberra	Presentation on Fellowship	35	2	
5/05/10	Perth	Fellowship symposium	16	4	
23/06/10	Brisbane	Fellowship symposium	55	5	1
11/08/10	Melbourne	Fellowship symposium	47	7	
10/08/10	Adelaide	Fellowship symposium	40	3	
8/06/10	Townsville	Fellowship symposium	56	2	
Totals			**438**		

Table 2: Participants in the activities (ie staff, students)

Project	Staff	Students	Others
Daniel (James Cook University)	1	88 +43	51 practitioners
Benckendorff (James Cook University)	2	97	
Hill & McDonald (James Cook University)	2	15	
Yap (Newcastle University)	1	15	Industry interviews
Scott (Newcastle University)	1	24	
Sher (Newcastle University)	2	210	
Dodd & Rayner (Latrobe University)	2	70	
Prain (Latrobe University)	1	73	
Benson (Latrobe University)	2	30	
Clark & Oliphant (Flinders University)	2	15	
Fanning (Flinders University)	1	25	
Mills & Cavaye (Flinders University)	2	8	30 university staff
Sweet (Flinders University)	1	12	
Maire (Murdoch University)	2	22+16	
Holloway (Murdoch University)	1	18	
Lee (Murdoch University)	1	4	3 university and practitioner staff
Fitch (Murdoch University)	1	63	
Meadows & Ford (Griffith University)	2	8	
Balfour & Woodland (Griffith University)	2	13 (90+16)	
Giddens & Rathus (Griffith University)	2	12	School participants
Coordinators at participating universities	5		
Total	**36**	**881 (116)**	**84**