

Tools for Professional Learning in Business Education

Tracy Taylor

UTS Business School

University of Technology, Sydney

PO Box 123 Broadway NSW 2070 Australia

tracy.taylor@uts.edu.au

Eveline Fallshaw

Royal Melbourne Institute of Technology

PO Box 2476V

Melbourne VIC 3000 Australia

eveline.fallshaw@rmit.edu.au

Romy Lawson

UTS Business School

University of Technology, Sydney

PO Box 123 Broadway NSW 2070 Australia

romy.lawson@uts.edu.au

Michael Zanko

School of Management and Marketing

Faculty of Commerce

University of Wollongong

Northfields Ave NSW 2522 Australia

mzanko@uow.edu.au

Theo Papadopoulos

Faculty of Business and Law

Victoria University

PO Box 14428 Melbourne Victoria 8001 Australia

Theo.Papadopoulos@vu.edu.au

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ABSTRACT

Professional learning is widely used by business schools to develop students' discipline and generic management skills. In this paper we define professional learning and describe its identified benefits and key characteristics. We overview our nation-wide study of 37 Australian business schools together with industry consultations which elicited the empirical data used to frame the professional learning typology presented in this paper. We outline our findings on teaching approaches, good practice principles and enablers and impediments. Finally, we discuss how professional learning experiences that expose students to a professional environment and global and local business practices can provide an effective opportunity for critical review and reflection and enhance the transition from learner to professionally astute and responsible practitioner.

Keywords: Professional Learning, Employability, Industry Engagement

How industry relevant are business courses? Some prominent scholars have fervently argued that the focus of business schools on academic rigour has been to the exclusion of real world relevance (Bennis & O'Toole 2005), and industry studies have made much of the contention that many university graduates' employability skills are underdeveloped (*Business Industry Higher Education Collaboration Council 2007: 2*). Many business schools draw on "professional learning" as an approach to address the challenge of developing students' discipline and generic management skills and this is manifest in a range of teaching and learning activities, assessment practices and innovative programs. Despite considerable interest in this form of learning, there has been little work on how it can be best used by academics in business and management.

Professional learning in the curriculum incorporates the systematic development of professional competencies and can be a means for students to gain an understanding of the realities of professional life. Research has shown that the development of professional learning environments in higher education can act to engage students in 'authentic activities of the kind that reflect ways in which knowledge and skills are used in the real world [and which] offer a bridge between theory and practice' (Bennett 2006: 121). It has also been shown that constructing knowledge-building communities is effective in creating graduates who are more 'connected to the real world of their profession' (Kiggins, Cambourne, & Ferry 2005:76).

The aim of this paper is to investigate what professional learning is and how is it constructed. Firstly, we offer our definition of professional learning and describe identified benefits of professional learning approaches and their key characteristics. Second, we overview our nation-wide study of 37 Australian business schools and industry consultation process which elicited the empirical data used to develop and frame our professional learning typology. Next, we present our findings on teaching and assessment approaches, good practice principles and enablers and impediments. Finally, we discuss how professional learning experiences that expose students to a professional environment and to global and local business practices, whether through, for example, cooperative education, international field trips or management simulations, can provide an effective opportunity for critical review and reflection and enhance an effective transition from learner to professionally astute and responsible practitioner.

PROFESSIONAL LEARNING

Professional learning within a higher education setting can be used to deliver a range of benefits to students, faculty, the institution, the community and professional bodies. We define professional learning as: *the development of professional capabilities through teaching and learning experiences and activities that integrate academic, discipline-specific and industry-referenced knowledge, skills and attitudes*. In this definition industry encompasses business, government and the professions (Hanlon, Blackburn and Shytayer 2008) as well as not-for-profit organizations and other community organisations.

Commonly espoused student outcomes of professional learning include: acquisition of generic and discipline-specific skills relevant to a future profession; experience of what it is like to work in a real business; establishing a work history, with the possibility of an employer reference and/or future work and developing a network of professional contacts; and building personal characteristics such as confidence, maturity and motivation (Gibson, Brodie, Sharpe, Wong, Deane, & Fraser 2002). Freudenberg, Brimble and Cameron's (2009) empirical evidence of the benefits for students from partnering with industry to integrate professional skills systematically into undergraduate degrees included: development of students' generic capabilities; employment readiness; and a better understanding of their future profession. Proven benefits for universities are: degree programs that are

more attractive to prospective students; straightforward ways to make links with industry; consulting and collaborative opportunities with industry (Gibson et al. 2002); and improved graduate employability (Harvey, Geall, & Moon 1998). For industry, benefits encompass: the identification of students who may be suitable future employees (Gibson et al. 2002); forging links with academics through placements that assist with building the organisation's learning culture; exposure to student enthusiasm and new ideas that businesses might not normally pursue (Harvey et al. 1998); access to resources associated with the university, which can include staff and facilities; and development of working relationships that can develop into opportunities for cooperation and collaboration on other projects (Gibson et al. 2002).

Building successful links with industry is critical to the success of embedding professional learning, but there are considerable challenges: issues about who owns intellectual property; the slow pace at which universities often work; academics' level of business savvy for engaging with industry; finding areas of common interest on which to base partnerships; managing partnerships, including governance, data collection and reporting; the robustness of relationships between individuals, universities and industry; and obtaining the necessary resources for sustainable relationships.

Approaches for engaging industry in professional learning can include: a planned partnership from the beginning based on shared goals; secondment or recruitment based on mutual benefits; and ad hoc or opportunistic engagement according to needs and context. However, in addition to considering the type of approach, the nature of the engagement itself is critical.

METHODS

We explored if and how professional learning was being used in the business curriculum of Australian universities¹. A documented analysis and review of all Australian institutional and business school mission statements was undertaken to establish a profile of institutional approaches to professional learning. This was followed by a survey of business school academics to create an inventory of professional learning practice, collect examples of approaches, and gain data for the development of a

¹ Australia has 41 universities, 37 public, two private, and two Australian branches of overseas universities.

professional learning typology. The survey was sent to the business schools of all 37 public universities with 32 completing the survey, eliciting an 87% response rate.

The survey gathered data on the types of professional learning taking place in business schools and collected examples of professional learning initiatives. The latter were collated into an inventory of practice, to illustrate the breadth of practice and external engagement strategies, and provide data for the initial categorisation of professional learning types. This was then used as the basis for focus group interviews to validate a typology of professional learning. The seven focus group sessions included 80 academics from 18 institutions in five states.

What we describe as “associated tools” were extracted from the survey and focus group data including Good practice principles, guidelines on teaching approaches used to develop specific professional capabilities, and assessment tips to support designing professional learning. A series of seven follow up workshops with 72 academics from nine institutions across five states were then used to facilitate a critical review of the typology and the associated tools.

PROFESSIONAL LEARNING TYPOLOGY AND TOOLS

The typology conceptualises and operationalises professional learning into broad categories of learning and teaching activities. Eight types emerged² as seen in Table 1, and these are not mutually exclusive as overlap in teaching approaches, learning activities and intended outcomes occurs.

Four good practice principles for professional learning were identified as critical and relevant across all eight categories. These four principles are: explicit links to industry (making explicit links to industry or professional bodies), curriculum currency (using up to date issues and practice), an integrated curriculum (linking practice with theory) and self directed learning (fostering reflective practice and lifelong learning). These are presented in Tables 2, 3, 4 and 5 along with strategies for their implementation.

Table 1: The Professional Learning Typology for Business Education

² The project typology of professional learning with a series of over seventy case studies to demonstrate each type, a set of good practice principles and a series of enablers and impediments for academics engaging in embedding profession learning into the curriculum. These and other resources can all be accessed from www.embeddingprofessionallearning.com.

Of particular importance were the enablers and impediments to professional learning, as it was the presence or absence of support, reward and encouragement provided to academics that often determined whether professional learning initiatives achieved long term sustainability and strong industry support or fell by the wayside when personnel changed. Enablers and impediments were identified as a critical aspect of successful learning. The quotes in this section are from business school faculty in the focus groups and workshops.

Table 2: Industry-referenced: Explicit links to industry or professional bodies

Many of the academics surveyed and interviewed for the study cited institutional process and protocols as somewhat cumbersome and impeding rather than enabling their practice. Some institutions had developed customised systems and dedicated resources to support the development and implementation of professional learning. Dedicated funding, often in the form of institutional teaching and learning grants, was an important enabler for facilitating the development of professional learning. On the other hand, a lack of adequate resources was identified as limiting the ability to adopt professional learning approaches. It was reported by some academics that the teaching culture inhibited professional learning with colleagues who did not believe that professional learning was intellectually rigorous and thus saw the development of practice-based curriculum as inappropriate in a university degree program.

Some colleagues show utter contempt and hostility towards practice-based learning, founded on a misplaced sense of protecting the traditions of academe. This is about providing a meaningful context for learning and, if done well, should not represent a diminution of academic rigour. (Focus group participant)

In terms of mutual benefit in industry–university collaboration, good practice entails making the benefit to the industry partner clear, otherwise engagement in professional learning could be viewed merely as an exercise in good corporate citizenship rather than a relationship of mutual obligation and reciprocity. Ambiguity has the potential to undermine the sustainability of industry–university relationships. The benefits for industry partners need to be clearly communicated to develop long-term sustainable relationships.

Table 3: Curriculum currency: up to date issues and industry practice

The growth in numbers of business students and in professional learning curriculum initiatives has placed increasing demands on industry. In examples of good practice, effective marketing and relationship management have enabled and supported this expansion.

More firms became involved as the project moved to the implementation stage, with 22 firms participating in the first professional development program and launch of the degree. By the end of 2008 this had grown to 49 firms and this continues to expand, with firms expressing interest in the project as knowledge of it spreads. (Focus group participant)

Use of simulations, competitions and other types of professional learning decrease dependence on industry partners, and when properly constructed, these quasi-authentic approaches provide rewarding learning experiences for students.

Having strong support from alumni, personal professional networks and using industry adjuncts were all cited as important enablers of industry-engaged professional learning. However, continued requests for provision of professional learning experiences for ongoing student cohorts risked over-use of existing relationships. Good practice involved not just accessing high profile multinationals but also tapping into the considerable opportunity to collaborate with small and medium size firms. This factor is discussed in more detail in the following section.

While collaborative partnerships have expanded opportunities for the integration of professional learning and improved curriculum currency, many academics noted that increasing demands across the range of academic work – teaching, scholarship, research, service to the university, external engagement and administration – were a major impediment to curriculum renewal, innovation and partnership developments. Inadequate time and resources often necessitated considerable personal and professional sacrifice in pursuing professional learning relative to more traditional approaches to teaching.

Table 4: Integrated curriculum: Linking practice with theory

The vital role of the learning culture was a common theme in focus groups and workshops, noting the considerable enthusiasm students demonstrate for experiential learning as both a motivation for and an enabler of professional learning. Drawing on the rich life and work experiences of students brought valuable insights into professional practice. Conversely student capability can be a barrier to effective learning where students lack the work (and life) experiences needed to maximise the benefits of professional learning opportunities. Many interviewed pointed to considerable student apathy about their learning. Students exhibiting poor attitudes and behaviour are not good ambassadors for the university and this situation can be an impediment to industry-engaged professional learning. For this reason many placement models were selective, an approach often aligned with industry partners seeing placements as a pathway in their screening and recruitment process.

Other challenges identified included a crowded curriculum, with coverage of internationalisation, sustainability, ethics, inter-cultural competence and the like all vying for limited curriculum space. The employment of academics without recent industry experience was thought to be a considerable impediment. Academics with recent industry experience were more likely to see professional learning as crucial in business higher education. Experience (and professional networks) considerably enhanced academics' capacity to design and deliver professional learning curriculum. Another identified challenge was designing effective assessment for professional learning and devising a different pedagogical approach from traditional lecture–tutorial models. The absence of skills to deal with this and reluctance to change longstanding teaching approaches and work practices were cited as impediments to the expansion of professional learning beyond the enthusiasts.

Table 5: Self-directed learning: Fostering reflective practice and lifelong learning

Our Industry Advisory Group suggested that to enable successful professional learning consideration must be given to developing sustainable engagement practices. Long-term reciprocal partnerships with industry and relevant professional associations are facilitated by emphasising the benefit for industry of engagement, establishing the why, with whom and the outcomes, through effective communication. Acknowledgement of the partnership is also important to recognise the contribution

made by partners. Industry developed learning experiences, working with or supporting industry to develop new ideas for professional learning was noted as an effective way to promote industry engagement. Encouraging industry partners to initiate activities, for example competitions, to sponsor events for example projects or to contribute to assessing or judging student outcomes, also foster a sense of involvement and ownership of the process.

Teaching and Assessment Approaches

Teaching and assessment approaches for designing and delivering suitable curricula were reviewed and an interactive teaching approaches matrix to support academics undertaking professional learning (presented in Table 6 and found at www.embeddingprofessionallearning.com) identified types of professional learning which were mapped to targeted graduate capabilities such as communication skills, working with others, research, technical skills and thinking (based on Oliver's 2010 Graduate capabilities), and teaching approaches using Trigwell and Prosser's (2004) *Approach to Teaching* classification.

Table 6 Types of Professional Learning

Assessment of professional learning is often seen as a challenge. The assessment process should reach beyond graduation to nurture attitudes, skills and knowledge for life (Boud et al. 2010), it should be used for more than measuring learning objectives. Therefore assessment needs to be designed in such a way as to be sustainable, inform judgement, foster reflexive learners and develop students into practitioners. Professional learning can inform judgement and develop the necessary practitioner skills by emphasising the critical nature of professional capabilities in authentic settings. The often self-directed nature of this style of learning environment also encourages self-assessment and reflection. The typology and the related examples were used to develop assessment guidelines that foster:

- Authenticity: industry representation provides “real” life situations
- Driving learning: through both formative and summative assessment
- Sustainability: demonstrate meaningful application of essential lifelong professional capabilities

- Judgement: able to see the consequences of behaviour, debrief and discuss decisions
- Reflexive learning: components that develop personal and interpersonal awareness and behaviour
- Practitioner development: a scaffolded developmental approach to develop students' sense of themselves as professionals in training
- Feedback: timely and constructive feedback around clear criteria
- Constructive alignment: teaching aligned with assessment of professional learning qualities
- Moderation of marking: industry practitioners involved in grading within the context of university requirements, the AQF level of the qualification and professional bodies' requirements
- Explicit criteria and standards: academic and business standards need to be articulated.

IMPLICATIONS FOR BUSINESS EDUCATION

The transition from university study to professional practice is not seamless, and many students find it challenging to translate what they have learnt in a classroom to the workplace. Professional learning experiences that expose students to a work environment and business practices can assist with the effective transition from education to employment and career. The opportunity for ongoing practice, critical review and reflection throughout the student learning experience can also enhance effective transition from learner to professional practitioner.

Professional learning can be embedded via creative curriculum design and enable students to integrate knowledge across business disciplines and facilitate a better understanding of the relationships and interdependence of the key functional areas of a business. Business schools and educators could do more to build explicit understanding of professional skills, capabilities and expectations. Providing authentic learning experiences and positive role models can shape the student learning culture. Highlighting career transitions and pathways can create the stimulus for changing student attitudes and behaviour. Students need a better sense of possible careers and how their behaviour and decision making today will impact on future opportunities and life experiences. Assessment can assist by encompassing aspects that impact on graduate capabilities, employability and career transitions. The challenge is to help students understand possible outcomes during their course of study, as well as the

links between their approach to education and life experiences. Such approaches address Whetton's (2007) contention that effective learning in management education is facilitated by students' having a clear understanding of the what, how and why of their learning experiences.

In this study, the student learning culture was seen as a particular challenge to achieving good professional learning as many Australian business students spend considerable time in paid employment, but do not see learning and work as connected activities. This means challenging student perceptions and values about the purpose of university education, and the behaviour that results, so that education is seen as integral to their life and career journey, a journey in which they are immersed as effective learners. As indicated by the business, government and professional body reports referred to earlier in this paper, industry is looking to new graduates to demonstrate a breadth of experiences indicative of broad-ranging capabilities and interests. Students should have an opportunity to engage in challenging problems that are unbounded, contextualised and provide an opportunity to demonstrate creativity. Curricula, co-curricula and extra-curricula activities that provide opportunities for immersion in social and cultural activities, including volunteering are part of this mix. Through professional learning we can do a better job in integrating academic work with the workplace and vice versa. Making these connections will better prepare and enable new graduates to straddle their personal and professional lives.

As employers of graduates, the business sector has a vested interest in the professional development of students as prospective employees. Collaborative approaches to curriculum development and student learning could be further explored via more sophisticated and clearly articulated university–industry engagement and partnerships. University–industry collaboration should ideally occur at the conceptual stage of program and curriculum development. At an operational level a detailed implementation plan with clear tasks and responsibilities will assist in articulating the mutual responsibility and obligation involved in developing and sustaining the profession. Fundamental to building and monitoring relationships is the identification of intended outcomes and benefits, for all parties involved.

Universities and professional associations need to be realistic about what is achievable. The benefits for industry can sometimes be ambiguous and collaboration in whatever form - hosting student placements, assisting with program advisory committees, developing industry-based projects - is time consuming. There are considerable costs for all parties involved in university–industry engagement. The difficulty and cost associated with industry engagement should not be underestimated and cost-benefit analyses of existing and proposed relationships and strategies is advisable.

While recognising the need for flexibility, a structured and strategic approach to building relationships is preferable to a reactive and opportunistic one. Immediate specific and tangible benefits for industry might be difficult to quantify but these are critical to building a commitment to engage. A long-term view needs to be embedded in the conceptualisation and actualisation of any partnership. This will help minimise the reactive approach and develop sustainable and mutually beneficial partnerships. Curriculum innovation that is informed by industry and the professions needs to be embedded in university practice, with explicit recognition and reward for academics involved in this process.

The perception that innovative professional learning curriculum and industry engagement are not valued and rewarded undermines sustainability and good practice. It is not sufficient or sustainable to depend on a limited group of dedicated and passionate teachers willing to sacrifice time to improve the student learning experience. Maximising opportunities for contextualised learning and industry engagement requires a commitment from university leadership, backed by real resources. Business schools should consider how best to showcase outstanding work and reward excellence – a challenge for all business educators into the future.

CONCLUSION

Professional learning can be a powerful tool for students, educators and business schools. When used effectively, this form of learning can benefit multiple stakeholders. Setting clear goals and expectations about the purpose and intended outcomes of professional learning experiences, and their place in the business curriculum, provides a basis for students to better understand what they should be learning and how. Professional learning can also assist with the achievement of many meta-

objectives that a program, school or institution may have where professional learning activities take espoused theory out of the textbook and students are provided the opportunity to develop and apply their knowledge and skills in real situations.

Professional learning needs to be sufficiently supported by institutional mechanisms which allow business and management educators to develop and implement learning experiences with industry input and insights. Professional learning should be accountable for its outcomes and relevancy to students and industry by enhancing professional knowledge, skills and capabilities. Professional learning can also serve as an integrating force, it can underpin the matrix approach to embedding professional skills and knowledge across a business degree, with learning outcomes explicitly articulated to students and understood by all those teaching into the program.

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Table 1: The Professional Learning Typology for Business Education

1. Industry case study	An actual business scenario or challenge faced by business requiring students to apply analytical and problem-solving skills to explore solutions and/or critically evaluate those made by business executives.
2. Industry simulation	Reality-based, experiential learning-centred approaches engaging students in real-time analysis and decision making in real-world situations within the safety of an educational environment.
3. Industry practitioner delivery	Industry practitioners engage in the teaching program to deliver specialised lectures, present in seminar series, conduct professional development workshops or participate in assessment of student projects and presentations.
4. Industry mentoring	Matching students with a professional role model to enhance skills (instrumental) and attributes (developmental), investigating career options (transition and pathways), increasing understanding of the benefits of coursework (knowing and doing), and exposure to different thinking and learning methods.
5. Industry study tour	Includes field trips, site visits and more lengthy tours. Industry study tours aim to create opportunities by travelling to industry-related places and situations, allowing students to apply theory, see theory in practice, ask questions of professionals in situ, compare and contrast different sites of work and connect curriculum and learning to professional practice.
6. Industry placement	Immerses students in a workplace related to their discipline or career goals. Ideally, industry placement combines both class-based learning and structured and supported workplace activity with opportunities to reflect on learning and seek timely feedback on performance.
7. Industry competition	Industry competitions involve industry running, judging, sponsoring or in some other way supporting or encouraging students, often in teams, to compete against each other to achieve a business-oriented goal in a short time frame. Industry competitions include marketing strategies, management plans, business start-up ideas and online business games. Recognition and rewards are an important incentive in this category.
8. Industry project	Industry projects include a broad range of activities and typically involve the sort of work undertaken in the workplace. Industry projects include the production of a workplace artefact (e.g. management plan, business report, market research) and management activities. So as well as providing a forum to apply theory to a real-world work issue, projects develop students' project management skills, team skills, communication skills and problem-solving skills.

Table 2: Industry-referenced: explicit links to industry or professional bodies

Principles	Strategies	Student Benefits
<p>Explicitly linked to industry or professional bodies</p> <p>Create and sustain relationships</p> <p>Industry engagement needs to be resourced</p> <p>Industry understands student learning</p>	<ul style="list-style-type: none"> • Develop activities in conjunction with industry • Liaise with professional bodies to align activities to their standards • Engage with a variety of stakeholders to establish a network • Create a mutually beneficial relationship by ascertaining how each party can support each other, for example, provide benefits to industry practitioners, for example library facilities, professional development • Manage expectations and competing demands • Use small local businesses with a desire to grow their business • Investigate funding opportunities to develop projects that support professional learning • Take advantage of industry sponsored events • Integrate industry practitioners into the academic program through industry adjuncts as academics • Orchestrate regular meetings with the industry experts to discuss learning outcomes and methods of assessing to ensure a mutual understanding 	<p>Making the learning “authentic” through greater industry involvement makes the learning more relevant and so more valued</p> <p>The opportunity for students to work with industry contacts who have an ongoing involvement in the program provides continuity for them.</p> <p>Expanding the network of contacts allows a wider range of experiences for students.</p> <p>Providing fully resourced learning experiences for all student allows for equity</p> <p>Making professional learning experiences align between academic and industry provides the students with structure providing learning support from both academics and industry contacts.</p>

Table 3: Curriculum currency: Up to date issues and industry practice

Principles	Strategies	Student Benefits
Review and renew curriculum to embed contemporary and emerging industry issues and practices	<ul style="list-style-type: none"> • Encourage academics to maintain industry links and practice • Approach practitioners to highlight current industry issues • Renew curriculum each year to allow for contemporary issues • Review the processes through constant feedback to and from all stakeholders 	Contemporary issues are more relevant to students for their learning and transition to careers

Table 4: Integrated curriculum: Linking practice with theory

Principles	Strategies	Student Benefits
<p>Purposeful design</p> <p>Learning approaches that apply theory to practice</p> <p>Clear link between targeted capability and professional practice</p> <p>Creates a meaningful and relevant industry context for learning</p>	<ul style="list-style-type: none"> • Align the curriculum to include activities that encourage development of professional capabilities and that assess in an authentic manner • Make the learning objectives (professional capabilities) explicit to students, industry and assessors • Design assessments that demonstrate application and understanding rather than knowledge and facts • Outline roles and responsibilities of students and industry • Make sure all parties are provided with full briefings to ensure the maximum benefit of experiences for all involved • Ensure equity and access • Encourage the use of technology to communicate, coordinate groups and track progress • Recognise achievement in a public manner, for example reward ceremonies • Embed PL activities into the curriculum rather than making them extra curricular • Explicit links made to professional practices within theoretical framework • Prompt reflection between theory and practice • Present outcomes, for examples reports or presentations to an industry panel for comment • Relate experience to professional body requirements. Use diverse, multidisciplinary team formation • Develop professional capabilities through practice with feedback 	<p>“Transparent” learning prompts student driven learning</p> <p>Making the links explicit to students help them to understand the application of theory in practice.</p> <p>Prompting reflection of experiences in relation to theory again reinforces the connection.</p> <p>Students who understand the links between their professional learning experience and capabilities required by professional bodies and industry helps them to value their learning and see how it can be applied after graduation.</p> <p>Replicating the “real” world in professional learning and providing feedback which relates to the workplace gives students the best insight into the lifelong aspect of their learning</p>

Table 5: Self-directed learning: fostering reflective practice and lifelong learning

Principles	Strategies	Student Benefits
<p>Student takes initiative and responsibility for learning with academic as facilitator</p> <p>Fosters adaptive experts through authentic, experiential educational experiences</p> <p>Learning from experiences in educational and other settings that develop the critical understandings, procedures and dispositions required of professional roles in a particular discipline area</p> <p>Assurance of professional learning</p>	<ul style="list-style-type: none"> • Prompt teams to detail their goals and individual responsibilities • Encourage self-awareness and self-management through reflective assessments and action planning to help evidence personal growth and self-development • Encourage collaborative learning, for example peer review and support • Provide “real life” experiences with hands on tasks • Assess for application/ understanding • Provide “feedforward” to aid further development • Involve students in the complete process, for example, identifying an issue, proposing solutions to the issue, working through the solutions, reviewing the impact of the implementation • Prompt students to both gain an understanding of the standards expected in professional practice and to self assess their performance in these capabilities • Develop moderation to include industry experts in the assessments of students professional capabilities 	<p>Self-awareness helps students appraise their progress and so control their learning When undertaken this process results in continual development and so lifelong learning</p> <p>Authentic experiential learning drives deeper learning especially when the assessment requires students to demonstrate application, understanding and multiple perspectives</p> <p>Feedback aids student progress and learning management</p> <p>Providing experiences of complete processes helps students put their learning into context</p> <p>Relating learning to the performance levels of professional bodies and industry provides students with “real” world standards so they can compare their performance to expectations at graduation</p>

Table 6: Types of Professional Learning

Approaches	Information transmission	Concept acquisition	Concept development	Concept change
Focus Capabilities	Teacher	Teacher	Teacher/Student	Student
Communication Written Oral Listening Reading	Practitioner Study Tour Mentoring	Practitioner Study Tour Mentoring Case Study	Project Placement Competition Simulation Study Tour Mentoring Case Study	Project Placement Competition Simulation Case Study
Working with others Teamwork Leadership Negotiating Community engagement	Mentoring	Mentoring	Project Placement Competition Simulation Mentoring Case Study	Project Placement Competition Simulation Case Study
Knowledge Theory Industry awareness	Practitioner Study Tour Mentoring	Practitioner Study Tour Mentoring Case Study	Project Placement Competition Simulation Study Tour Mentoring Case Study	Project Placement Competition Simulation Mentoring Case Study
Understanding Intercultural Values Ethics Interpersonal	Practitioner Study Tour Mentoring	Practitioner Study Tour Mentoring Case Study	Project Placement Competition Simulation Study Tour Mentoring Case Study	Project Placement Competition Simulation Mentoring Case Study
Technical ICT literacy Numeracy Occupation-specific	Practitioner Study Tour Mentoring	Practitioner Study Tour Mentoring	Project Placement Competition Simulation Study Tour Mentoring Case Study	Project Placement Competition Simulation Mentoring Case Study
Independent learning Reflection Time management			Project Placement Competition Simulation Mentoring Case Study	Project Placement Competition Simulation Mentoring Case Study
Research Methodology Analysis Literature review Publications	Mentoring	Mentoring	Project Mentoring Competition Simulation Case Study	Project Mentoring Competition Simulation Case Study
Thinking Critical Analytical Problem solving	Practitioner Study Tour Mentoring	Practitioner Study Tour Mentoring Case Study	Project Placement Competition Simulation Study Tour Mentoring Case Study	Project Placement Competition Simulation Mentoring Case Study