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Professional development for professionals: beyond sufficiency learning

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We question the current role of professional associations in developing a culture of learning beyond a sufficiency or competency level. This brings into question the underlying philosophy of Professional Standards legislation. This legislation mandates continuing professional development for professionals without stating what should be achieved and how to achieve it.

Professional development for professionals is influenced by the twin economic requirements of work-readiness and risk minimisation. These requirements, while important, do not necessarily account for career development of individual professionals needing to deal with complex and ill-structured paradigms. Therefore the paper argues the need for professional associations to develop learning environments which enable the effective continuing career development of professionals and sets out the essential elements for this learning environment – for example, work-integrated learning, contextualised constructivism and self-directed learning. The paper also discusses the potential within professional associations to develop cultures and communities for learning.

Background and context

Professional associations are the guardians of professional standards. As such, they require members to engage in continuing professional development (CPD) in order to retain membership and any associated credentials. Professional development is necessary for professionals to keep themselves up-to-date within their profession in areas of: technical, legal, conceptual and/or social change. CPD programs should foster development of a learning culture which encourages continual growth of knowledge and professionals' ability to apply that knowledge.

Professional Standards legislation, enacted in state legislation in Australia broadly from 2003, has reinforced a focus of professional development on competency and standards. The legislation emphasises a need to ensure that professionals comply with the requirements of an 'approved scheme' as a means of protecting the public through risk minimisation policies (PSC 2006, Standards Australia 2001). The emphasis upon standards focuses less on the development of new or deeper career knowledge or on the acquisition of specialisation or integration knowledge (Smith 2005, Standards Australia 2007).

The qualities expected in graduates has been set out in the United Kingdom by Dearing (1997) and in Australia by West (1997). In the Department of Education, Science and Training report, *Striving for quality: learning, teaching and scholarship*, there is a recognition that technical competencies should not be the sole determinant of education policy in Australia. However, the report noted a confusion of terminology in the use of terms such as outcomes, attributes and skills and that the development of graduate attributes has shadowed the adoption of the concept of key competencies within the vocational education sector. The report identified 'emerging skills and knowledge that have not been previously a focus of higher education curricula' (DEST 2002:1).

The Dearing and West reports, together with the Bologna protocol (Kohler 2004), have a common message that professionals require not only technical skills and knowledge but also soft or generic skills, together with an ability to process acquired knowledge. As Lambe (2002:n.p.) states, '…very little of real working life is run on agreed common definitions …', professionals often have to work on approximations and most of practice is '…highly interpreted, time and place contingent, and constantly shifting'.

All this challenges a competency focus for learning. Competency is defined as a combination of skills, abilities, and knowledge needed to perform a specific task (Jones, Voorhees & Paulson 2002:8). However, Smith (2005:n.p.) argues that 'in much current usage, the notion of competence has been whittled down to the ability to undertake specific tasks; it has been largely stripped of its social, moral and intellectual qualities'. The current emphasis of professional development, specified by professional associations, appears to concentrate on developing and assessing competency (or a sufficiency standard of knowledge for professionals). To develop professionals, beyond a sufficiency level, requires an appropriate learning paradigm. Therefore the research focus is to develop an appropriate learning paradigm so that professional development enables professionals to advance beyond a sufficiency level.

Messages being sent to educational authorities, regarding the knowledge, skill and understanding expected of professionals, are itemised in a grounded study (Calway & Murphy 2007) of published mission statements, public policies and institutional governance expressions, for example, Australian Government policies (1975–2005), OECD reports (2002, 2003) and the International symposium on career development and public policy held in Australia (CICA 2006). The study identified six educational imperatives: workforce readiness, a professional development culture (both individual and workforce related), international relevance, lifelong

learning, knowledge transference, human and social potential. Of these imperatives a common thread was skilling for the workforce. The Bologna process also emphasised the link between employability and education (Kohler 2004). The Dearing (1997) and West (1997) reports and the Bologna process (2004) specify a broader level of knowledge, skill and understanding for professionals than mere skilling for the workforce by way of discipline-specific, technical training.

Australia has developed unique legislation concerning Professional Standards. While Professional Standards legislation specifies a requirement for professional development to improve standards, it does not suggest what this involves or how it may be achieved. Rather, it delegates professional development to individual professional associations under schemes of self-regulation. Applications by professional associations, applying for 'registration of a scheme' under the legislation, have concentrated on limiting the civil liability of professionals rather than improving standards (PSC 2007).

Expectations concerning relevant professional bodies of knowledge

Our study has examined the entry-level requirements for a collective of professional associations and the process by which members may achieve specialist status. Shulman's Table of Learning (Shulman 2002), a significant development of Bloom's taxonomy of educational objectives (Bloom 1956), is used as a means of assessing the objectives shown in the policy statements of professional associations in areas of knowledge (that is, competency focused, deeper learning, integrative knowledge and specialist knowledge).

Discipline-specific skills have been and will always be an important component of the knowledge, skill and understanding required by professionals. Table 1 sets out the additional (generic or non-technical) skills and knowledge defined by Dearing, West and the Bologna Process.

Table 1: Generic skills and knowledge required by graduates

DEST (2002) (Australia), based on West (1997)	**Dearing (1997) (United Kingdom)**	**Bologna Process (Europe) (Kohler 2004)**
Skills including:	**Concept of 'Graduateness'**	**Cognitive, emotive and value-oriented Soft Skill competences including:**
• Initiative and enterprise • Information literacy and management • Capacity for lifelong learning • Ability to: – be adaptable – 'learn-to-learn' in jobs and roles yet to be envisaged – work effectively in multi-disciplinary contexts	• Knowledge • Understanding • Dispositions • Attitudes • Values	• Knowledge-related: – languages – basics of law – economics – ICT • Methodological: – problem-solving – integrative thinking – decision-making – time management • Personal: – individual values – social interaction – reliability – initiative – willingness to work • Social: – empathy – ability to: – cooperate – lead – bear conflict

With this in mind, therefore, there is an expectation that professionals possess both discipline-specific and generic skills. To be admitted into a profession, professionals may have only been tested on one of these and even that may have been only at a superficial or sufficiency

level. The bodies of knowledge specified by professional associations for entry into professions mostly concentrate on discipline-specific issues. Our wider research project examines this in more detail, but the preliminary examination of a sample of professional associations' websites supports this contention (for example, ACS 2007).

Table 2 shows the entry and other credentialing requirements for a range of professional associations in Australia, specifically examining the need for practice-based learning or work-integrated learning (WIL). The table also examines the types of specialisations available within these professions. All specialisations require further study and assessment and sometimes include a WIL component. Broadly speaking, WIL is seen as:

> ... educational activities that integrate theoretical learning with its application in the workplace. These educational activities should provide a meaningful experience of the workplace application that is intentional, organised and recognised by the institution, in order to secure learning outcomes for the student that are both transferable and applied (Griffith University 2006).

While technical competence is not the sole component of a body of knowledge, the discipline-specific competence prescribed by professional bodies for graduates represents only a small portion of the expertise and proficiency expected by the public and specified in government reports. An emphasis on mere technical competency would therefore seem to meet neither the expectations of government nor professional associations.

All national professional associations have developed bodies of knowledge. Some professions – for example, financial management, marketing, architecture and project management – have developed international bodies of knowledge which are used within Australia. National diversities are unlikely to be taken into account. The international bodies of knowledge are most commonly assessed with a focus on competency, and with multiple choice assessment (for example, PMI 2007).

Table 2: Professional qualification requirements

Professional membership				Specialist membership		
Discipline	**Entry to occupational association**	**WIL required, or experience requirement**	**Registration/ licensing/ accreditation**	**Specialisation (examples)**	**WIL required, or experience requirement**	**Registration/ licensing/ accreditation**
Medical	Degree (doctor)	Internship	Yes	Ophthalmology, Anaesthetist, Cardio/Thoracis *et al.*	Internship	Yes
Nursing	Degree	Internship	Yes	Midwifery, Intensive Care *et al.*	Internship	Yes
Law	Degree	Internship	Yes			
Engineering-Civil/ Construction	Degree	No WIL. 3 years' experience for full membership	Yes	Project Management	No	Certification available[1]
Engineering - Manufact'g/ Production/ Chemical etc.	Degree	No WIL. 3 years' experience for full membership	No			
Accounting	Degree	No WIL. 1 year's experience for full membership	No	Tax, Financial Planning Auditing, Company Secretary Corporate, Management, Finance	No No No	Yes Limited Limited
IT	Degree (various types)	No WIL. 4 years' experience for full membership	No	Project Management, Network Administration, e-Business, Knowledge Management, Security	No No No No	Certification available[1] No No Under discussion
Teaching	Degree	Practicum	Yes			
Insurance Broker	Certificate	No WIL	Yes			

(Source professional association websites)

[1] There is project management certification available from a number of bodies. Certification is not a requirement to practise as a project manager.

Universities design programs to satisfy the body of knowledge requirements of professional associations in order to increase the employability of their graduates (for example, University of South Australia 2006). Assessment in discipline-specific areas is easier for academia than the assessment of either personal attributes or integrative knowledge (Thalheimer 2007).

We question whether the learning achieved, both undergraduate and particularly post-credentialing, is at the depth required by professionals and whether the 'one size fits all' approach seen in assessment strategies is appropriate for professionals' career development.

Professional development designed for professionals

Professionals face problems which can be conceptually intricate, often varying from case to case, and requiring more than the retrieval from memory of intact prescriptive knowledge. The problems faced by professionals are often complex and ill-structured where successful solutions are often non-repeatable in whole or in part. Professionals need to build knowledge by constructing meaning in different situations using knowledge developed through effective learning rather than through committing information to rote memory (Spiro, Feltovich & Jacobson 1996). This constructed knowledge requires both domain knowledge and experience to solve each new situation (Brown & Duguid 1991). The design of learning for advanced level professional development for professionals needs to build knowledge, skill and understanding rather than being exclusively competency-based training, where the design focuses on problems which have objective, repetitive solutions.

Melotte (1996) argues that knowledge should be seen as being explanatory, predictive and interpretive. Therefore, professional development programs designed for professionals should take into account that transfer of learning needs to be the key element of these

programs. Professionals will not reach this level of understanding and adaptability unless their understanding of theory constructs is sound and they are encouraged to transfer learning content to the workplace context. Professionals should also be capable of transferring their learning to other professionals and, by extension, to their clients.

Professionals in practice need professional development at an appropriate tertiary level and arguably this is made relevant through drawing on the contextual experience and/or the work environment of the professional. Brown and Duguid (1991) in developing the theories of Lave and Wenger (1991) claim that separation of knowledge and practice is unsound and further argue for the composite concept of 'learning-in-working' to enable a fluid evolution of learning through practice. This is an emphasis we argue, when considering work-integrated learning practice as a learning environment for professional development.

Ramsden (1992) sees deep level learning as occurring when experiences are integrated into the learner's present body of knowledge and understanding and connections are made to previous lessons (a constructivist learning paradigm). Rote learning and the acquisition of de-contextualised pieces of information characterise surface learning. Contextualised or deep learning involves reflection and is developmental, integrative, self-directive and lifelong (Barrett & Wilkerson 2004). Learning which encourages interpretation and enables understanding of reality in a different way should involve comprehending the world by reinterpreting knowledge (Ramsden 1992).

Transfer of knowledge

Entry into traditional professions such as medicine, dentistry and law require demonstration of proficiency through practice-oriented learning for membership and credentialing. Significantly, nursing has modelled its learning systems on medicine. Many professions, while

sometimes requiring some elements of WIL, are less prescriptive overall. The more business-oriented disciplines, while having specific credentialing requirements governing entry to membership, are less able to restrict practice within the profession. They are also less likely to require practice-oriented learning, although some form of work experience – generally with unspecified content – may be required to achieve full professional association membership (for example, ACS, CPA etc).

Work-integrated learning is an appropriate educational philosophy to enhance the careers of professionals. WIL recombines learning with the real world in a single education paradigm. It incorporates hands-on work experience and instructional learning in a real-world setting that assumes a level of explicit knowledge/skill on the part of the learner and the exchange of tacit knowledge/skill from the real-world to the learner. Doyle (2002) highlighted the value of linking learning to real workplace problems and situations. In Doyle's study, students were able to apply theory to real-life situations, with the result that they were engaged in deeper learning as they grew in confidence and were able not only to obtain clarity about the actual learning topics but to identify the future applications of that learning. Human Resources and Skills Development Canada (HRSDC 2005:2) supports this view when referring to Mosel (1957) who identified three conditions for transfer: content must be applicable to the job, the trainee must learn the content, and the trainee must be motivated to change job behaviour by applying what was learned.

Professional associations should encourage self-actualisation professional development where professionals grow beyond a sufficiency and competence level and become 'learning leaders' of their profession and organisations. Real growth in knowledge combined with the ability to apply that knowledge is vital to the future of professional standards.

Equally effective 'transfer of learning' is the key to ensuring that education has a positive impact. Educators assume that transfer of

learning always occurs as a result of education and training. They expect that whatever is learned will be retained or remembered over time and used in appropriate situations (Doyle 2002). Unfortunately, conventional educational practices often fail to stimulate students by either using conditions similar to those in the learning context, including using well-practised routines, or searching for connections using deliberate abstraction (Perkins & Salomon 1992). Transfer of learning is said to occur when learning in one context enhances a related performance in another context.

Beach (1999:103), in elaborating the theory of transfer of learning, argued that 'learning, development, and education are inherently cultural as well as personal enterprises, and, by extension, so is the phenomenon of transfer'. Beach argues that development is achieved through transitions. It is the context-grounded, consequential transitions in the lives of professionals which provide opportunities for professional growth.

Specialisation requires developing deeper learning within a profession. Professionals who wish to develop their careers beyond the sufficiency level need to take responsibility for their career development in order either to become a specialist or to be able to integrate their domain knowledge with other domains. It is noteworthy that, for example, medical and nursing professions have well-defined specialisations with defined learning programs which extend the capabilities of these professionals through a combination of technical content and work related practice. Integration of knowledge involves developing knowledge over a broader context and ideally within a WIL context. Professionals aiming at management roles are most in need of integrated knowledge (Brown & Duguid 1991, Carson 2003, Shulman 2002).

Learning in its broadest sense has taken place when a learner can demonstrate or display that learning later. While passing an exam can demonstrate that ordinary learning has occurred, transfer learning is always at least implicitly contrastive: it assumes learning within

a certain context and asks about the impact beyond that context. Human Resources and Skills Development Canada refers to the so-what or now-what phase of the learning process. However, HRSDC (2005:1) also states that 'abundant evidence shows that the very "often hoped for" transfer from learning experiences does not occur'. It defines transfer of learning in the context of the workplace 'as the effective application by trainees to their jobs of the knowledge and skills gained as a result of attending an educational program'.

Transfer of learning is positive when learning in one context impacts on performance in another context. HRSDC (2005:2) cites Baldwin and Ford's (1988) claim that not more than ten percent of expenditures on training and development in North America actually result in transfer to the job. There are no comparable figures for other economically developed countries but it is reasonable to assume that these economies are likely to present similar figures to those of North America. It is therefore reasonable to argue that, with the emphasis on assessment of competency, the potential and impact of positive and far transfer of learning has been ignored.

Learning environment design

The level of learning achieved both from practice-based learning or WIL and from the experience specified as required for professional level membership is seldom assessed, with the exception of the traditional professions of medicine and law and also in nursing. In these professions:

- cultures of learning have been established, and
- experienced (qualified) specialists take on a training role in the development of new professionals and specialists.

In the educational taxonomies developed by Bloom and others, there is an emphasis on a 'near transfer' of knowledge rather than developing knowledge, skills and understanding which will enable professionals to impact on contexts quite different from the context

of learning. However, Shulman's (2002) table of learning presents a mature view of learning which is different from Bloom's taxonomy and its derivatives. Shulman's table of learning is appropriate for professionals as it incorporates recognition that:

- professional development is a continuing process – CPD – not learning which has a definable start and a finite conclusion, and
- culture is an essential component of learning.

Shulman's approach is consistent with Beach's (1999) view of learning as a metaphor of transitions, consequential and context-driven, rather than static transfers.

In upholding the responsibility of professional associations to guard and develop the body of knowledge of the discipline, professional associations can use the differences inherent in Shulman's table of learning to develop cultures and learning environments designed for effective professional development.

Table 3: Comparison of educational taxonomies

Bloom & Krathwohl (1956) (in Forehand 2005 n.p.)	**Bloom's revised taxonomy (Anderson & Krathwohl 2001:67–68) (in Forehand 2005 n.p.)**	**Shulman (2002:2)**
Tier 1	Tier 1	
Knowledge	Remembering	Engagement and motivation
Comprehension	Understanding	Knowledge and understanding
Application	Applying	Performance and action
Tier 2	Tier 2	
Analysis	Analysing	Reflection and critique
Synthesis	Evaluating	Judgment and design
Evaluation	Creating	Commitment and identity

Shulman states that the learning necessary to be a professional is more than just intellectual endeavour: 'Professionals must learn not only to think in certain ways but also to perform particular skills, and to practice or act in ways consistent with the norms, values, and conventions of the profession' (Shulman 2002:2). This cannot all be learned within universities. Learning through context provides a framework to equip students for professional practice. Professionals solve real-world problems through constructing meaning in a given situation using both domain knowledge and experience (Brown & Duguid 1991). The concept of standard solutions to standard problems does not fit the needs of professionals in practice (Lambe 2002). Shulman (2002:6) argues that 'we need to go beyond teaching and assessing for understanding in order to foster judgment and design'. We argue that if education focuses on competency it is doubtful that:

- learning will be achieved beyond the first tier of Bloom's taxonomy (see Table 3), and
- deeper learning will be achieved.

Consequently, the level of knowledge and understanding achieved (Beach 1999, HRSDC 2005, Perkins & Salomon 1992, Shulman 2002) is likely to be at a surface level.

Table 4: Relation of work-integrated learning and Shulman's table of learning

Shulman's stage	**Relevance of work-integrated learning**
Engagement and motivation	WIL is enhanced as students are involved in their chosen careers prior to completing their studies.
Knowledge and understanding	Students see practical application of the theory they have studied, plus they will see, possibly for the first time, the critical issues of knowledge, power and prestige.
Performance and action	A key element of WIL is that students do real work and solve real business problems. The more challenging the problems, the deeper the level of learning the student is likely to achieve (even if the student is not always successful). The student is exposed to the culture of work.
Reflection and critique	WIL should always require the student to engage in critical reflection. This is an important element of both action and active learning. It is essential to achieve deep learning.
Judgment and design	Whether students achieve this level may depend on individual employers and possibly the way the university structures learning objectives for WIL. Significantly, WIL provides a vehicle by which students can become involved in projects which do not have pre-set solutions and which contain the complexities of business operations.
Commitment and identity	Students start to be treated as peers or colleagues. This is different from normal teacher/student relationships. Students start to identify with their profession and see what it means to practise within that profession (c.f. Jancauskas, Atchison, Murphy & Rose 1997, Shaw 1992, WACE 2006, Young 1997).

Shulman does not see his table of learning as necessarily following a strict sequential pattern or having a beginning and an end. He feels that commitment and identity is most likely to be followed by new engagement and motivation as professionals engage in lifelong learning and continually need to re-commit to learning in order to maintain levels of practical knowledge or to extend their knowledge base for further career development (Shulman 2002). We state that

unless learning is put into context, professionals will not obtain the knowledge, skills and understanding specified as required in the UK by Dearing (1997), in Australia by West (1997) and DEST (2002), and in the Bologna Process (Kohler 2004).

Conclusion

It should be expected that professionals develop a deeper level of learning in order to deal with the globally complex environments in which they work. Therefore, professionals and professional associations have a role to play in ensuring that learning frameworks and cultures are established to enable transfer of this learning. Work-integrated learning can provide a context for learning which will enhance professionals' engagement and motivation, knowledge and understanding, performance and action, reflection and critique, judgment and design, commitment and identity.

The research reported in this paper outlines a professional's learning environment development and supports the need for further study which examines:

- the educational imperatives for professional development at an advanced level for professionals
- the pressure of labour force imperatives and risk minimisation on professional practice
- the use and meanings of professional development terms
- the educational objectives of a collective of professional associations and analyses these for shared aims and differences based on Shulman's table of learning, and the learning theories used or supported by these professional associations
- an appropriate level of learning needed by professionals to develop and maintain a body of knowledge, and
- the role professional associations may play in the career development of their members.

Additionally our research prompts a further question: To what extent are the objectives of professional development for professionals driven by labour force imperatives and to what extent does this compromise individual career development? Australian Professional Standards legislation sets the scene for professional development policy but does not develop the basis for delivering professional development. There is an inherent assumption that proficiency is demonstrated in the credentialing process and provides a adequate basis for professional recognition; however, there is little expectation of learning beyond a sufficiency level.

Consideration needs to be given to the expectations of employers, consumers and society (represented by government) in relation to the knowledge, skills and understanding held by professionals and determining whether the compliance requirements of professional associations are consistent with these expectations. Equally, attention needs to be given to individual professionals in relation to their career development which is represented by their knowledge, skills and understanding together with their ability to practise as professionals.

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