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Keywords

Professional development, Professional socialization, Scholarship of learning, Scholarship of teaching and learning, Pedagogical content knowledge

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The Evolving Professional (EP) Concept as a Framework for the Scholarship of Teaching and Learning

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Abstract

This essay describes The Evolving Professional (EP) concept at use within the School of Dentistry, the University of Queensland as a multi-level framework that connects the learner and the educator in the scholarship of learning, the scholarship of teaching and learning and professional development. Perspectives and reflections into how this concept could be used to connect the nexus between professional development and scholarship of teaching and learning, to broaden the “teaching commons” and how this concept relates to learners and educators of professional training programs are explored.

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Introduction

The Evolving Professional (EP) concept started from an action research project for developing students as reflective practitioners through written and oral critical reflection that I implemented in 2006 as a GCED(HE) student. The key tenet of the EP concept is that “the way of being” a professional cannot be assumed as a “natural by-product” of tertiary education but must be explicitly developed and practised (Jayne et al., 2005; Masella, 2005 & 2007; Page 2005). At its most basic, the EP concept involves a culture of acceptance and recognition of students as evolving professionals, a context for professional learning and a series of EP learning activities to develop specific professional profiles as part of the core curricula of the undergraduate professional training programs. These EP learning activities are deliberately designed, embedded, implemented and evaluated.

The primary aims of the EP concept and its associated culture and activities are to empower students, guide student learning and development (the ways of thinking and being), enable a smoother transition from students to work-ready professionally-attuned clinicians, enhance students’ potential for success upon graduation, and to ascertain professional excellence. Using the EP concept as the basis for curriculum design and innovations and a way of thinking, learning and being among students from day one to the final days of their undergraduate professional training, it can be envisaged that the impact of the EP concept will be sustained beyond the undergraduate phase and that the essence of the EP concept will be translated into professional development post-graduation; with graduates recognizing that being an evolving professional is continuous and that we have the obligation as professionals to keep evolving and striving for excellence through lifelong self-directed learning and continuous professional education and development. From this perspective, the EP concept serves as a framework for the scholarship of learning for students and graduates.

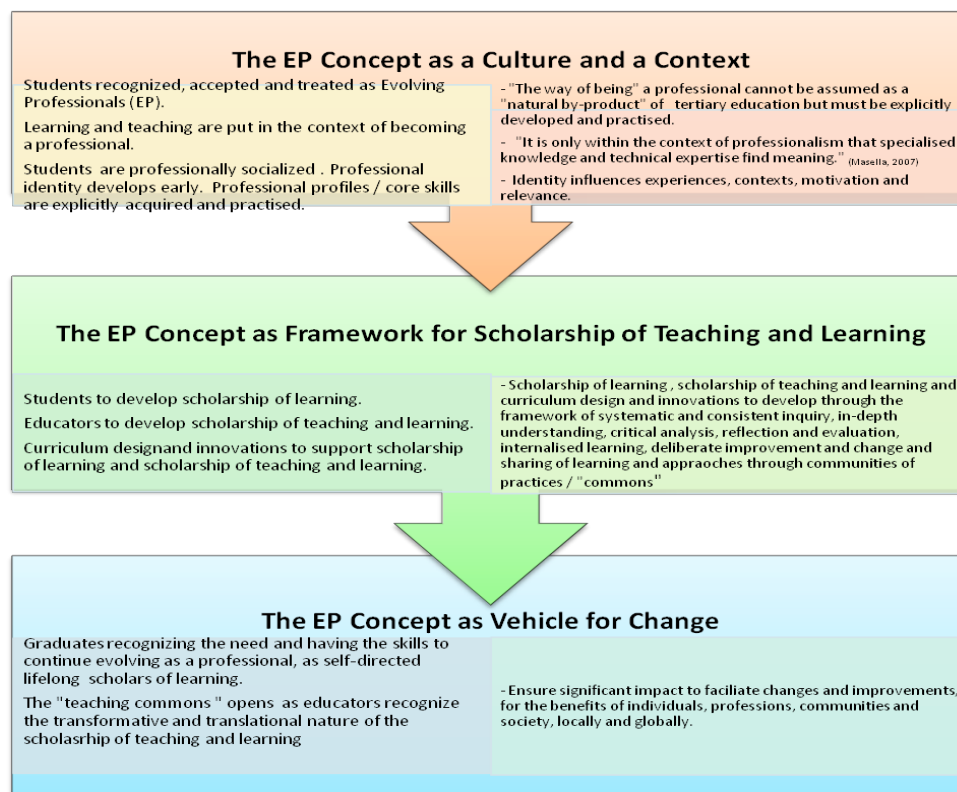
As the only full-time teaching-focussed academic at my School (aka teaching-intensive; meaning, I focus my efforts into scholarly teaching and development of scholarship of teaching and learning within dentistry and oral health), I designed the EP concept also

with educators in mind. I wanted to connect and integrate the scholarship of teaching and learning efforts within the Bachelor of Oral Health (BOralH, the program I lead and coordinator at UQ) and to ignite greater interest among staff. I also wanted to find a way of focussing the scholarship of teaching and learning activities at my School and to build a critical mass around this area, so that it could be recognized as an emerging research strength. The EP concept is developed to be collaborative and adaptive, capable of encompassing many different perspectives and areas of interest. The EP concept is also intended to be translational, having relevance for health, allied health and non-health professions; and in both educational and discipline research. In developing the EP concept through multi-disciplinary and cross-institutional collaborative efforts, the "teaching commons" (Huber & Hutchings, 2005) may be widened and its impact on scholarship of teaching and learning may be expanded beyond a course, a program, a School, an institution. From this perspective, the EP concept serves as a framework for scholarship of teaching and learning for educators.

The EP concept

The EP concept is designed and developed to serve as an expandable and sustainable multi-level framework. The EP concept refers to a culture of evolving professionalism, a learning context for specialised knowledge and skills, student engagement and excellence, a platform for professional socialization and scholarship development for the learners, a basis for curriculum design and innovations, a hub for scholarship of teaching and learning activities and a vehicle for change (Figure 1 – The EP concept unpacked).

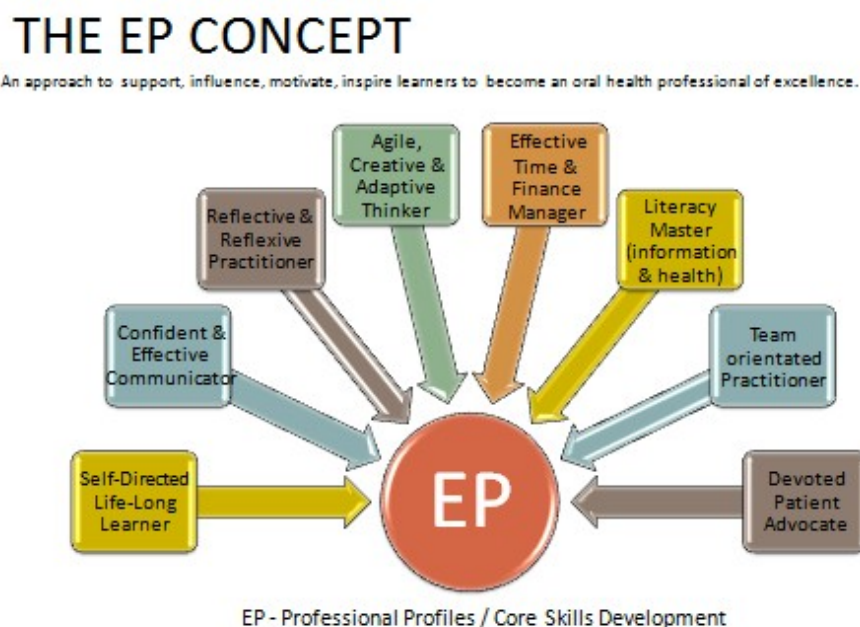
Figure 1: The EP Concept unpacked.



Moreover, the EP concept aligns with the School mission of “making a significant contribution to oral health through 1) a focussed and collaborative platform of research , 2) producing graduates of the highest standard, through excellence in teaching and learning, 3) contributing to the advancement of the profession and 4) promoting the highest levels of personal achievement in each of its students and staff” (UQ School of Dentistry, 2007).

At one level, the EP concept refers to a culture and a context for teaching and learning and for professional socialization and professional development. Students are recognized, accepted and treated as evolving professionals and guided in developing a positive professional identity early to influence motivation and relevance. Learning and teaching are put in the context of “the way of being” a professional and professional profiles / core skills are acquired and practised (Figure 2 – Professional profiles / core skills).

Figure 2: Professional Profiles / Core Skills Development for EP



At UQ, we are currently focussing on the development of three key transferrable professional profiles / core skills among our undergraduate students: 1) EP as reflective practitioners, 2) EP as skilled communicators and 3) EP as collaborative team members. These , together with an in-depth knowledge and skills in the field of study encompasses most of the UQ graduate attributes, namely effective communication, independence and creativity, critical judgement and ethical and social understanding (UQ HUPP, 2006). These specific professional profiles / core skills also serve as strategic learning approaches that aim to facilitate the development of our students for successful professional clinical practice as well as research or academic-based careers and to equip students for lifelong self-directed learning for both personal and professional development. The decision to concentrate on developing these three EP skills is a deliberate one. We believe if students could master and internalise these three skills early in addition to having an in-depth knowledge in their field of study, they would have the fundamental core skills necessary to further develop the other desirable professional profiles /core skills. Overtime, as core skills accumulate, integrate and become internalised, students become increasingly self-directed, professionally attuned and clinically patient-focused members of the dental team, be work-ready, and be of benefit

to their patients, their employers, their professions and the community.

The EP concept refers to a framework for the scholarship of teaching and learning that aims to 1) enhance, focus and contribute to curriculum design and innovations, 2) serve as a teaching and learning approach that makes explicit “threshold concepts” and “hidden curricula” and 3) integrate and better develop collaborative efforts to improve teaching and learning for the novice as well as the lifelong learning and development of the practising professionals. Moreover, the EP concept provide a lifelong “way of being” a professional that supports and encourages inquiry, innovation and excellence, enriches beliefs, thoughts and practices and demands sustained improvement and persistent quest for scholarship and expertise.

At its highest level, the EP concept may be analogous to being a vehicle for change. Students, having gone through training under the EP concept, would become professionals who continue to evolve and learn throughout their careers to ensure consistent and sustained improvements for the benefits of individuals, professions, communities and society. Educators, recognizing the transformative and translational nature of the EP concept for scholarship of teaching and learning, through collaborations and dissemination among communities of practice, would facilitate changes in the educational and social contexts.

The EP Concept as a Scholarship of Learning Framework for Students

Traditionally, learning is seem as the outcome of teaching, therefore dependent on and directed by the persons teaching and the authorities involved in dictating the content to be taught and learnt e.g. the tertiary institution (Cunsolo Willox & Lackeyram, 2009). In this context, learners take on a passive role. In recent years, the onus of learning has somewhat shifted and students are expected to take responsibility for their own learning, while teachers assume the responsibility of facilitating the learning (Pinsky et al., 1998; Cannon & Newble, 2000). Cunsolo Willox and Lackeyram (2009) went on further to state,

Teaching can never direct learning fully. It can ignite and incite it. It can encourage it, and provide the opportunities for its emergence, but teaching can never dictate the direction the learner will take his/her learning, nor can it ever foresee all possible meanings and nuances the learner will ascribe.

The EP concept as a scholarship of learning framework for students aims to address student learning, through empowering and facilitating students to strive beyond being scholarly learners to develop scholarship of learning. The scholarship of learning that the EP concept refers to includes the processes of systematic and consistent inquiry, in-depth understanding, critical analysis and reflection, evaluation, personal judgement and internalisation of learning opportunities and experiences, deliberate improvement and change, and sharing of learning and learning approaches through a community of practice e.g. peers (Cunsolo Willox & Lackeyram, 2009). The scholarship of learning does not end, but is lifelong, purposeful and self-directed. The scholarship of learning among students aligns and integrates with the scholarship of teaching and learning among educators.

As mentioned above, the EP concept refers to a culture of evolving professionalism, a learning context for specialised knowledge and skills, student engagement and excellence, a platform for professional socialization, professional development, development of professional profiles / core skills and for curriculum design, and a hub for scholarship of teaching and learning activities. At its core, the EP concept recognizes that identify affects experiences, contexts, motivation and relevance. The EP concept, through recognizing professional identity as influential in the context of learning and

professional development, enhances “conscientization” for learning, i.e. “helping individuals see themselves relative to larger social structures” (Gilpin & Liston, 2009). The EP culture and EP as the basis of curriculum design and learning activities set the scene for inquiry, critical analysis, reflection, deliberate improvement and change and for sharing within a community of practice. The EP learning context and EP as a platform for professional socialization and professional development provide the drive and reasons for in-depth knowledge, skills and understanding, engagement and attaining excellence, evaluation, personal judgement and internalisation of learning, deliberate improvement and change and sharing of these within a community of practice. The three key EP profiles emphasized at the UQ School of Dentistry (EP as reflective practitioners, as skilled communicators, and as collaborative team members) form the basic tools necessary for developing these processes of scholarship of learning among its learners during their professional training.

The UQ School of Dentistry is a School that is responsible for the delivery of professional programs. Students enter specific programs, knowing that they will qualify with an explicit qualification that will enable them to practice as an oral health professional. Implicitly, students realise that they have come to learn the ways of being an oral health professional and “to become”. Yet the definition of professionalism, the actions pertaining to being professional and the expectations of the profession are not clearly articulated, explicitly taught to students and internalized by students. Furthermore, the importance and relevance of the professional identity and of professional development are often overlooked by students and staff. Controversy exists within the literature on these topics (Masella 2005 & 2007; Trathen & Gallagher, 2009). Most current definitions and descriptions of “professionalism” in dentistry and medicine refer to the themes of high level of specialised skills, with sustained effort to continuously improve quality and maintain lifelong excellence. (Welie, 2004; Nath, 2005; Masella, 2007; Trathen & Gallagher, 2009). The EP concept as a framework for scholarship of learning supports, enables and contributes to enhancing this hallmark of professionalism.

Indeed, the UQ School of Dentistry aims to restore the importance and relevance of the professional identity, professionalism and professional development in the context of learning, to its rightful place through the EP concept. As Masella (2007) aptly stated,

The most important mission of dental education is development of student professionalism. It is only within the context of professionalism that specialized knowledge and technical expertise find meaning.

Early professional socialization empowers students by providing a context and reasons for deep learning, enhancing their sense of belonging, enhancing self-efficacy, instilling professional confidence and motivating them to strive for excellence (Page 2005; Jayne et al., 2005) and a clearly defined professional identity is recognized as a significant determining factor in relations to work-readiness, recruitment and retention, job satisfaction, work-related motivation, continuous improvement and success (Carter et al., 2000; MacKinnon et al., 2001; Bozik & Schmeiser, 2003; Sellheim, 2003; Thompson et al., 2008).

In recognizing professionals as evolving and challenging students to learn and develop in this context, the School also recognizes that the roles of the oral health professionals are continuously changing in society, resulting in different legislations and regulations, care delivery in public services and private sectors, employer, employee and patient expectations, modifications and innovations in clinical practices and workforce, etc. (Trathen & Gallagher, 2009) and thus learning, improvement and professional development of students and graduates, must also be continuous and sustained through efforts of on-going inquiry, analysis, reflection, evaluation, judgement, internalization, contextualisation, improvement and change, as well as dissemination of revelations that encompass the EP’s scholarship of learning.

The EP Concept as a Scholarship of Teaching and Learning Framework for Educators

Whilst the exact definition and description of scholarship of teaching and learning is still emerging, there appears to be some consensus in relation to the scholarship of teaching and learning as recognizing: 1) the importance of the learners in learning (and teaching) and innovations for enabling, enhancing, enriching and advancing learning, 2) teaching as deliberate design and integration, systematic inquiry, evidence-based analysis and evaluation, and authentic applications, relevant to research, 3) teaching as a public and open endeavour situated within and across communities of practices or teaching commons; 4) teaching as a scholarly pursuit that relates and contributes to existing knowledge and practices, is reflective and reflexive, subject to critical peer review, transparent critique and discussions and academic rigour and 5) teaching and learning as agents for change culturally and socially, locally and globally (Shulman, 2002; Huber & Hutchings, 2005; Kreber, 2005; O'Brien, 2008; Prosser, 2008; Gilpin & Liston, 2009).

As a framework for scholarship of teaching and learning for educators, the EP concept aims to enhance, advance and support the teaching and learning of professional training programs within the context of students as evolving professionals and future colleagues. The EP concept does not limit itself to "*discipline-specific pedagogical inquiry into how students learn*" (Kreber, 2007) but aims to improve and enrich student learning, enhance student outcomes, enable significant learning about teaching and about learning, make explicit how learning is facilitated, improved and transformed by teaching and facilitate collaborative constructions of meaning and being (Trigwell et al., 2000; Smith, 2001; Trigwell & Shale, 2004; Prosser, 2008; Cunsolo Willox & Lackeyram, 2009). Through the EP concept, the scholarship of teaching and learning among educators and the scholarship of learning among learners are conceptually and visibly aligned and integrated. The shared commonalities across professions and disciplines are explored and individuals and groups are connected, thereby promoting exchange of ideas and enhancing cooperative influences across the "teaching commons" (Huber & Hutchings, 2005). Furthermore, the EP concept aims to serve the needs of educators in professional programs, for professional development, for the development of reflective processes and reflexive practices and to improve and enrich ourselves as learner-educators, clinician-educators and researcher-educators, individually and collegially, to build capacity, to share these ideas and reflections publically, to ignite interest and to establish communities of scholars and practitioners (Kreber & Cranton 2000).

In addition, the EP concept provides a context for unravelling "threshold concepts" and the "hidden curriculum" associated with the ways of being evolving health professionals (both prior to and after graduation) and evolving health professional educators. We referred to the "hidden curriculum" and "threshold concepts" synonymously to explain "*concepts that are central to that discipline's way of constructing knowledge and viewing the world...and...provide a doorway or "threshold" through which other ways of thinking in that discipline become accessible*" and "*represents a transformed way of understanding, or interpreting, or viewing something without which the learner cannot progress*" (Meyer & Land, 2003 & 2005; Land, Meyer & Smith, 2008; O'Brien, 2008). In dentistry and oral health, professional socialization and professional development from being students to work-ready professionals are significant "threshold concepts" that far too often are left untouched or addressed only superficially much too late into the program. By uncovering the "threshold concepts" associated with the ways of being a professional through scholarship of learning among students and scholarship of teaching and learning among educators, the EP concept addresses areas that were previously deemed "assumed knowledge" (Masella 2005 & 2007) and not worth wasting time

teaching, “tacit knowledge” (Wenger, 2000) that cannot be taught and/or “troublesome knowledge” (Perkins, 1999) and too difficult to teach, removes the boundaries and open up conceptual spaces to further professional development, learning and teaching with the aim of enabling students to undergo “internalisation and integration” of their learning, “epistemological transitions” i.e. advancing in knowledge and knowing and “ontological transformations” i.e. developing the ways of being (Meyer & Land, 2003 & 2005). For educators in particular, “threshold concepts” open up new and diverse perspectives for advancing the scholarship of teaching and learning and investigations into “threshold concept” and will undoubtedly provide opportunities to enhance scholarly teaching, transform the understanding and teaching of discipline-specific “tacit knowledge” and add clarity to the teaching and learning that we do on a day to day basis (McLean, 2009).

The goal in developing the EP concept as a framework for the scholarship of teaching and learning is to advance teaching and learning collaboratively and collegially within one discipline as well as within a multidisciplinary setting, prioritize efforts towards improving evidence-based and theory-framed teaching and learning, explore different aspects of being authentic professional learner-educators, clinician-educators and researcher-educators, facilitate benchmarking and widen the “teaching commons” (Huber & Hutchings, 2005) to include learners, practitioners, professionals, researchers for whom EP conveys meaning and significance. Ultimately, the aim is to significantly influence our students and colleagues, our community and the society.

Many aspects of teaching and learning may be explored within the framework of the EP concept. Some EP scholarship of teaching and learning projects that are being put in place currently at the UQ School of Dentistry include:

School-based

- Evaluation of students as reflective practitioners, skilled communicators and collaborative team members
- Evaluation of curriculum redesign for the facilitation of student learning as reflective practitioners, skilled communicators and collaborative team members.
- Development of EP attributes through collaborative creative strategies
- Assessment as learning within the context of the evolving professional, peer learning and peer mentoring
- Exploring professional identities through reflective writing and critical event narratives
- Developing professional identities and professional attributes through community-integrated and work-integrated learning
- Redefining the discipline of professional development and discipline standards in the context of the EP concept

Faculty-based

- Developing assessment review tool to enhance professional learning and teaching
- Enhancing assessment feedback for learning using digitised technology to provide electronic textual and audio comments
- Developing interprofessional clinical placements with students in EP teams to enhance professional development
- Developing professional identities and professional attributes through community-integrated and work-integrated learning

Nationally

- Making sense of the development and emergence of the Oral Health Therapy profession in Australia and New Zealand via a collaborative monograph
- Redefining professional expectations and standards in the context of the EP concept and national student registration

Moreover, with The Councils of Australian Governments (COAG)-driven national registration and accreditation scheme for health and allied-health professions due to be implemented from July 2010, opportunities exist to develop the EP concept in alignment and collaboration with the scheme, especially in relation to the scheme's proposed student registration (AHWO, 2009) and its associated professional expectations and professional development recommendations and requirements.

Conclusion

The EP concept at use within the School of Dentistry, the University of Queensland, is a multi-level framework that connects professional development and the scholarship of teaching and learning. As a framework for the scholarship of teaching and learning, its capacity to transform learning and teaching in professional programs is enormous; its potential for broadening the "teaching commons" and impact society is significant.

The EP concept as a framework for the scholarship of teaching and learning focuses on being translational and applicable to health, allied-health and non-health professions, as well as being transformational by "*reconceptualising teaching and learning as a process whereby learning communities grow in their understanding of one another and our roles in society*" (Gilpin & Liston, 2009). In being translational, applicable and transformational, the EP concept facilitates learners and educators to embrace learning and teaching issues broadly, immerse into teaching and learning literature with the same rigour and zeal as discipline-specific literature, work towards addressing issues through inquiry and reflection, explore and inform knowledge and practices collectively and inclusively, develop sustained and successive academic leadership and ensure significant impact to facilitate changes and improvements, for the benefit of today's learners and educators across diverse fields, as well as for the future.

References

- Australia' Health Workforce Online (AHWO). National registration and accreditation scheme. Accessed online 14 July 2009. URL: <http://www.nhwt.gov.au//natreg.asp>
- Bozik K. C. L., Schmeiser, D. N. (2003). Activities designed to socialise students into nursing. *Nurse Educator*, 28(2), 55-57.
- Cannon, R., & Newble, D (2000). *A handbook for teachers in universities and colleges: A guide to improving teaching methods*. 4th Ed. London, Kogan Page.
- Carter, B. L., Brunson, B. J., Hatfield, C. L., Valuck, R. J. (2000). Description of an introductory course designed to socialise pharmacy students. *American Journal of Pharmaceutical Education*, 64, 166-173
- Cunsolo Willox A., & Lackeyram, D (2009). (Re)Considering the Scholarship of learning: Inviting the elephant in the room to tea. *International Journal for the Scholarship of Teaching and Learning*, 1(1), January. Accessed online 14 July 2009. URL: <http://www.georgiasouthern.edu/ijstol>
- Gilpin L., & Liston, D. (2009). Transformative education in the scholarship of teaching and learning: an analysis of SoTL literature. *International Journal for the Scholarship of Teaching and Learning*, 3(2), July. Accessed online 14 July 2009. URL: <http://www.georgiasouthern.edu/ijstol>

Huber, M. T., & Hutchings, P. (2005). Surveying the scholarship of teaching and learning. *The advancement of learning: building the teaching commons*. San Francisco: Jossey-Bass.

Jaye, C., Egan, T., Parker, S. (2005). Learning to be a doctor: medical educators talk about the hidden curriculum in medical education. *Focus on Health Professional Education*, 7(2), 1-17.

Kreber C. & Cranton P. A (2000). Exploring the Scholarship of Teaching. *Journal of Higher Education*, 71(4), 476-495.

Kreber C. (2007). What's it really all about? The Scholarship of Teaching and Learning as an Authentic Practice. *International Journal for the Scholarship of Teaching and Learning*, 1(1), January. Accessed online 14 July 2009. URL: <http://www.georgiasouthern.edu/ijstol>

Land, R., Meyer, J.H.F., & Smith, J (2008). *Threshold concepts in the disciplines*. The Netherlands: Sense Publishers.

Masella, R. S. (2005). The hidden curriculum: value added in dental education. *Journal of Dental Education*, 70(3), 279-283.

Masella, R. S. (2007). Renewing professionalism in dental education: overcoming the market environment. *Journal of Dental Education*, 71(2), 205-216.

MacKinnon, G. E, McAllister, D. K., Anderson, S. C. (2001). Introductory practice experience: an opportunity for early professionalising. *American Journal of Pharmaceutical Education*, 65, 247-253.

McLean, J. (2009). Triggering engagement in SoTL through threshold concepts. *International Journal for the Scholarship of Teaching and Learning* 3(2), July. Accessed online 14 July 2009. URL: <http://www.georgiasouthern.edu/ijstol>

Meyer, J., & Land, R. (2003). Threshold concepts and troublesome knowledge: linkages to ways of thinking and practicing within the disciplines. *Occasional Report No. 4, Enhancing Teaching-Learning Environments in Undergraduate Courses Project*, Universities of Edinburgh, Coventry and Durham. Accessed online 14 July 2009. URL: <http://www.ed.ac.uk/etl>

Meyer, J. H. F., & Land, R (2005). Threshold concepts and troublesome knowledge (2): epistemological considerations and a conceptual framework for teaching and learning. *Higher Education*, 49(2), 373-388.

Nath, C. (2005). Perceptions of professionalism vary most with educational rank and age. *Journal of Dental Education*, 70, 825-834.

O'Brien, M. (2008). Navigating the SoTL landscape: A compass, map and some tools for getting started. *International Journal for the Scholarship of Teaching and Learning* 2(2), July. Accessed online 14 July 2009. URL: <http://www.georgiasouthern.edu/ijstol>

Page, G. (2005). Professional socialisation of valuers: what the literature and professional bodies offer. *International Education Journal*, 5(5), 105-116.

Perkins, D. (1999). The many faces of constructivism. *Educational Leadership*, 57(3), 6-11.

Pinsky, L. E., Monson, D., & Irby, D. M. (1998). How excellent teachers are made: reflecting on success to improve teaching. *Advances in Health Sciences Education*, 3, 207-215.

Prosser, M (2008). The scholarship of teaching and learning: what is it? A personal view. *International Journal for the Scholarship of Teaching and Learning* 2(2), July. Accessed online 14 July 2009. URL: <http://www.georgiasouthern.edu/ijstol>

Schulman, L.S. (2002). *"Forward" in ethics of inquiry: Issues in the scholarship of teaching and learning*. CA: The Carnegie Foundation for the Advancement of Teaching and Learning.

Sellheim, D. O. (2003). Educational factors influencing physical therapist student's approaches to learning. *Journal of Physical Therapy Education*, 17(2), 11-21.

Smith, R. (2001). Expertise and the scholarship of teaching. *New Directions for Teaching and Learning*, 86, 69-78.

The University of Queensland Handbook of University Policies and Procedures (UQ HUPP). Policy Number 3.20.5 Statement of graduate attributes. Accessed online 31 July 2009. <http://www.uq.edu.au/hupp/index.html?page=25095>.

The University of Queensland School of Dentistry Undergraduate Student Handbook. Accessed online 31 July 2009. <http://www.uq.edu.au/dentistry>.

Thompson, D. F., Farmer, K. C., Beall, D. G., Evans, D. J., Melchert, R. B., Ross, L. A., Schmoll, B. J. (2008). Identifying perceptions of professionalism in pharmacy using a four-frame leadership model. *American Journal of Pharmaceutical Education*, 72(4), 1-8.

Trathen, A., & Gallagher J. E (2009). Dental professionalism: definitions and debate. *British Dental Journal*, 206, 249-253.

Trigwell, K., Martin, E., Benjamin, J., & Prosser, M (2000). Scholarship of teaching: a model. *Higher Education Research and Development*, 19, 155-168.

Trigwell, K., & Shale, S. (2004). Student learning and the scholarship of university teaching. *Studies in Higher Education*, 29(4), 523-536.

Welie, J. V. (2004). Is dentistry a profession? Part 2. The hallmarks of professionalism. *Journal of the Canadian Dental Association* 70(9), 599-602.