

Faculty Engagement in Teaching Development Activities Phase 1: Literature Review

Prepared by: Frederick Evers and Shirley Hall
With: Judy Britnell, Bettina Brockerhoff-Macdonald, Lorraine Carter,
Debra Dawson, Donald Kerr, Joy Mighty, Gillian Siddall and Peter Wolf

for the Higher Education Quality Council of Ontario



An agency of the Government of Ontario

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Cite this publication in the following format:

Evers, F. and Hall, S. with Britnell, J., Brockerhoff-Macdonald, B., Carter, L., Dawson, D., Kerr, D., Mighty, J., Siddall, J., and Wolf, P. (2009) *Faculty Engagement in Teaching Development Activities – Phase 1: Literature Review*. Toronto: Higher Education Quality Council of Ontario.

Published by:

The Higher Education Quality Council of Ontario

1 Yonge Street, Suite 2402

Toronto, ON Canada

M5E 1E5

Phone: (416) 212-3893

Fax: (416) 212-3899

Web: www.heqco.ca

E-mail: info@heqco.ca

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1.0 Introduction

University faculty are expected to engage in teaching, research and service to their university and profession. The proportions of these activities vary by institution and discipline, but all faculty work within some combination of these three areas. It should be noted that during a faculty member's career, he or she may work almost entirely as a researcher for a certain period of time, especially if sponsored by a provincial or federal funding program, but will then often return to a focus on teaching once the research project is completed. An example of this would be a large research project funded by one of the three federal granting councils (Natural Sciences and Engineering Research Council [NSERC], Social Sciences and Humanities Research Council [SSHRC] or Canadian Institutes of Health Research [CIHR]).

Faculty generally learn how to do research in their respective fields of study through their graduate – and in some cases post-doctoral – programs. They learn how to serve the academic community on-the-job, however, and most also learn how to teach on-the-job. Very few university faculty ever go to teachers' colleges or their equivalent, as is required for most K-12 teachers. Some take teaching courses and programs as part of their graduate experience. A few universities in Canada offer teaching certificates to their graduate students, and there appears to be a trend toward more universities offering teacher training to graduate students. But the majority of faculty still learn how to teach in a fairly haphazard manner, simply learning as they actually engage in teaching. In order to develop appropriate program offerings to meet those training needs, it is important that teaching and learning units at universities better understand how faculty learn to teach. That is why the researchers involved in this study are all involved in the direction of teaching and learning units at their own institutions.

The overall purpose of this project is to learn how faculty engage in teaching development activities. Phase 1 involves a review of the literature, and Phase 2 is an actual research project undertaken at six Ontario universities. This paper represents the results of the review of literature, and will help guide the development of an on-line survey that will comprise much of the actual research project.

2.0 Background

In 2007, the Higher Education Quality Council of Ontario (HEQCO) initiated a dialogue with academic research leaders in an effort to enhance postsecondary education in Ontario. Understanding students' learning experiences – while ensuring access and accountability – was determined to be a priority for the provincial government.

Finnie and Usher (2005) developed a model of the learning process (Figure 1) that includes beginning student characteristics, learning inputs, learning outputs and final outcomes, and Ken Norrie of HEQCO used this model in his presentation at the event *Taking Stock: Symposium on Teaching and Learning Research in Higher Education*. All three direct relationships – student characteristics to learning inputs, learning inputs to learning outputs, and learning outputs to final outcomes – are of interest in the undertaking of this analysis.

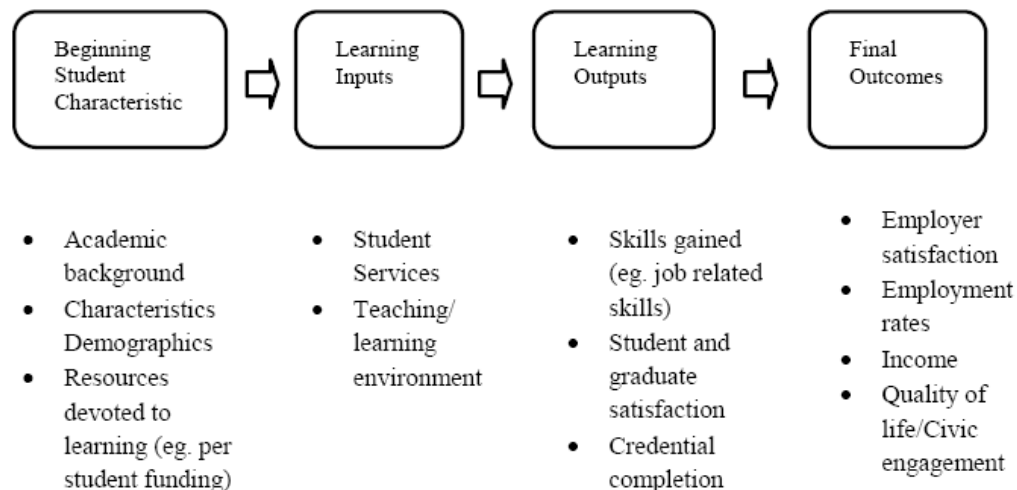


Figure 1: Finnie and Usher Learning Process Model (2005)

We proposed this research project to HEQCO because, as directors of teaching and learning resource centres at Ontario universities, we wish to better

understand faculty engagement in educational development. We know how many faculty and graduate teaching assistants attend our conferences, workshops, courses, and other offerings. We know the level of satisfaction that they report through the evaluations that some of them complete at these events. But, we do not know the overall level of faculty engagement in educational, and more specifically curriculum, development at our universities. We are interested in both individual course development by individual faculty, as well as departmental and program development by committees. Understanding faculty engagement is crucial to the design and implementation of programs and resources that we offer with a view to enhancing the quality of teaching at our respective institutions. This, in turn, will benefit students, faculty, departments and the institutions as a whole, as well as the workplaces in which the students themselves are eventually employed and the Province of Ontario.

2.1 Purpose of the Study

The current research project, funded by HEQCO, will investigate and report findings about faculty at Ontario universities engaged in developing and enhancing their teaching methods, focusing on how faculty engage in their teaching and what they do to improve it. Phase 1, the review of literature on aspects of faculty development in learning about teaching, is undertaken through the four lenses described by Brookfield (1995). The first three lenses are self, students and colleagues. For the fourth lens – theory – we look primarily at Canadian and American literature, with some references to material from other parts of the world. Phase 2 – the actual Research Project – involves six Ontario universities in an analysis of faculty engagement in learning about teaching at their institutions. The literature review will inform research questions that will be embedded in the focus groups and survey instruments to be used during Phase 2 of the study. Phase 2 itself, meanwhile, will document existing knowledge, explore new areas of knowledge, and identify gaps. In particular, we will study where and how faculty acquire their knowledge and skills regarding teaching.

In Phase 2, we will also seek to learn the context and culture of faculty engagement in teaching and curriculum development at each of the six universities involved in the study (Lakehead University, Laurentian University, Queen’s University, Ryerson University, The University of Western Ontario and

the University of Guelph). The survey will seek to answer some of the following questions: what is the mix of faculty engagement in teacher-centred, student-centred and learner-centred models? Are faculty members employing active and/or passive methods to promote learning in their classes, laboratories, seminars and other educational activities? What measures can we use to study processes within our universities? What is the link between faculty engagement in educational development and improved teacher practice? And what are the policy implications of our results for the province – and the university system – as a whole?

The research results will be shared with peers, institutional leaders, interested decision makers in teaching and learning support centres, educational developers and others in order to assist in identifying the levels at which faculty members are engaged in educational development practices within Ontario universities. Engagement activities will be studied within the context of the five grounded theoretical models outlined in Section 5.0 of this document (Framework of Understanding – Five Models).

2.2 Four Lenses

In his book *Becoming a Critically Reflective Teacher*, Stephen Brookfield uses four lenses to view faculty development in teaching. The four critically reflective lenses are:

- (1) our autobiographies as learners and teachers,
- (2) our students' eyes,
- (3) our colleagues' experiences, and
- (4) theoretical literature.

We will discuss each of these sources, but the bulk of the review will focus on the theoretical literature. In particular, we will look at the scholarship of teaching and learning because it is a growing field that informs teaching practice and is a focus of teaching and learning centres. All four of these lenses require reflection in order to incorporate improvements into teaching.

According to Brookfield (1995: 29), any autobiographical analysis “puts us into the role of ‘other’... We become connected to what our students are experiencing, [and] investigating our autobiographies as teachers is often the first step on a critical path.” In a related statement, Akerlind (2007: 30) argues that self-assessment allows teachers to continually increase their own understanding. Weston and McAlpine (2001: 92) note that teachers should be intentionally evaluating their own teaching to make improvements, as well as developing personal knowledge.

The second step is to see ourselves through our students’ eyes. “Seeing ourselves as students see us makes us aware of those actions and assumptions that either confirm or challenge existing power relationships in the classroom” (Brookfield, 1995: 30). Seeing ourselves as students see us also helps us ensure that the latter comprehend the meanings that we intend. Kreber and Cranton (2000: 488) advocate gathering feedback from students and conducting an action research project on student learning. Similarly, Theall and Centra (2001: 39) suggest conducting classroom research and using the results to modify teaching.

Thirdly, inviting colleagues to witness what we do in the classroom can help us see behaviour that is normally hidden from our view. Their descriptions of what they see can help us view our own practice in a new light. Theall and Centra (2001: 37) are consistent with Brookfield in that they suggest inviting peer assessments of teaching, and talking about course content with colleagues. Weston and McAlpine (2001: 91), meanwhile, advise faculty to engage in disciplinary and multidisciplinary teaching associations in order to develop and exchange information about teaching.

Finally, “theoretical literature can provide multiple interpretations of familiar but impenetrable situations” (Brookfield, 1995: 30). According to Brookfield (1995: 38), it is difficult to convince university faculty to read educational theory and practice; they may assume that those who write books on teaching do not understand the realities of the university classroom. Brookfield also notes that the reason for general scepticism about educational literature is that it is often assumed that education faculty are writing in the area primarily to impress tenure and promotion committees (38). Some faculty have noted to us that they simply

do not have the time to read educational literature if it is not within their primary field of study.

Trigwell, et al. (2000: 159) suggest that knowing, collecting and reading the literature about teaching and learning – the focus of this paper – is critical. This review is intended to help faculty who are interested in contributing to the scholarship of teaching and learning (SoTL) literature, as well as those who want to use the literature to improve their teaching, but are not necessarily interested in publishing in SoTL. The review focuses more on drawing out lessons for non-specialist faculty. It should be noted that learning styles contribute to whether faculty read and apply SoTL to teaching issues, as some prefer to try to address teaching and learning problems through experience. Not having enough time can also contribute to the use of experience rather than reading and applying. We have already learned that some faculty prefer to have short concise abstracts of research findings sent to them from teaching and learning centres.

3.0 Student and Faculty Learning

Using Brookfield's fourth lens – theory – this section focuses on changes in student and faculty learning models. The move from teacher-centred and student-centred to learner-centred approaches is covered in section 3.1. It is important to note that although we are dealing with theory, much of what follows has actually been applied in educational settings, and is grounded in actual classroom experiences.

3.1 Focus on Learner-Centredness

Akerlind's (2007) theory suggests employing a continuum to explain how we developed our understanding of teaching and learning over time from a more teacher-centred approach to a student-centered approach. The idea of learner-centredness is a step beyond student-centeredness. Hubball and Poole (2003) at the University of British Columbia have developed a learning-centred faculty certificate program based on this change in how teachers approach teaching and learning within their individual disciplines. Kreber (2006a) examines transformative learning through reflective practice, and notes that many authors have stressed the importance of reflection in the SoTL (91). Teaching portfolios (or dossiers) originated in Canada in the 1970s, and are a way for faculty to reflect on teaching and learning.

3.2 Faculty Development: Learning About University Teaching

Kreber, et al. (2005) look at how and to what extent university faculty are learning about teaching. They focus on “self-regulated learning,” which includes “setting specific hierarchical learning goals, holding a learning rather than a performance goal orientation, having high self-efficacy, and being intrinsically interested” (p. 80). The Kreber, et al. study (2005) found that instructors engage in self-regulated learning activities through

involvement in peer consultation programs, taking workshops on teaching, actively soliciting feedback from students, experimenting with alternate teaching approaches, reading theoretical articles on teaching and learning, and attending

conferences on teaching and learning, positively influence self-regulated learning within the domain of instructional knowledge (91).

The instructional knowledge domain is differentiated from the pedagogical knowledge and curricula knowledge domains, as per Kreber and Cranton (2000). Although all three domains – ways of knowing about university teaching – are interrelated, they are qualitatively different.

It should be noted that many faculty learn how to teach in a more piece-meal fashion, with an emphasis on practice rather than theory. Learning how to teach in this manner works quite well for many faculty, and we are not claiming that a theoretically driven development is better than a practice-oriented model. Faculty, like all people, have different learning styles. Some use experience more readily than reading, or prefer studying what others have done and then applying it themselves.

Amundsen and McAlpine (2008) conducted a review of faculty development literature. They found that from 1960-1980, the emphasis was on workshops and seminars as the most common form of faculty development. Throughout the 1980s, workshops and seminars were again the most common form, but they also found that the use of student course ratings were becoming more widely employed by faculty as a tool to measure teaching effectiveness. In the 1990s, four formats of faculty development emerged:

- (a) intervention by professional consultants;
- (b) workshops, seminars and courses;
- (c) mentoring programs; and
- (d) action research (including classroom research).

The outcomes of research to date have revealed five distinct existing foci:

- (1) skill – a solution is sought to a particular teaching problem as identified through student ratings,
- (2) approach – emphasis is on a particular teaching/learning method,
- (3) process – learning to teach by reflecting on one's own teaching,
- (4) discipline, and

(5) institutional,

as well as two emerging areas:

(6) scholarship of teaching and learning and
(7) mentor.

4.0 Introduction to the Scholarship of Teaching and Learning

The analysis now moves to an emphasis on the scholarship of teaching and learning (SoTL) as one (major) aspect of Brookfield's fourth lens: educational theory. The reasons for focussing on SoTL are:

- (1) It is an emerging area within the contemporary landscape (Amundsen & McAlpine, 2008) and
- (2) SoTL is the focus of a great deal of the work that teaching and learning researchers and centres are currently engaged in.

The focus is on the non-specialist who wishes to apply SoTL but does not have the time or inclination to read original SoTL work.

4.1 Definitions of the Scholarship of Teaching and Learning

We will review definitions of SoTL shortly, but a graphic representation (Figure 2) is very useful at the outset. Debra Dawson (2006: 3), citing earlier work by Kreber and Cranton, (2000) agreed that "SoTL represents the nexus between scholarly teaching, educational research, and traditional disciplinary research." To understand this better, Dawson presents two examples of SoTL:

First is the study by Hake (1998) who performed a pre-post analysis of two different methods of teaching introductory physics...A second study by Fullilove and Treisman (1990) examined the differences between those who excel in university mathematics versus those who experience difficulties. Both of these studies provide discipline specific research into teaching and learning and serve to enhance undergraduate education (Dawson, 2006: 3).

Dawson also notes that the advent of the International Society for the Scholarship of Teaching and Learning (ISSOTL) and the Carnegie Academy for the Scholarship of Teaching and Learning (CASTL), begun in 1998 by the Carnegie Foundation, is evidence of the development of SoTL. Canadian researchers play significant roles in both of these organizations. Specific to

Canada is the Society for Teaching and Learning in Higher Education (STLHE), which promotes SoTL and works with 3M Canada to host the 3M Teaching Awards, the most prestigious teaching award program in Canada. A list of the recent 3M and Ontario Confederation of University Faculty Associations (OCUFA) Award winners and their areas of expertise is presented in Table 1 in the Appendix.

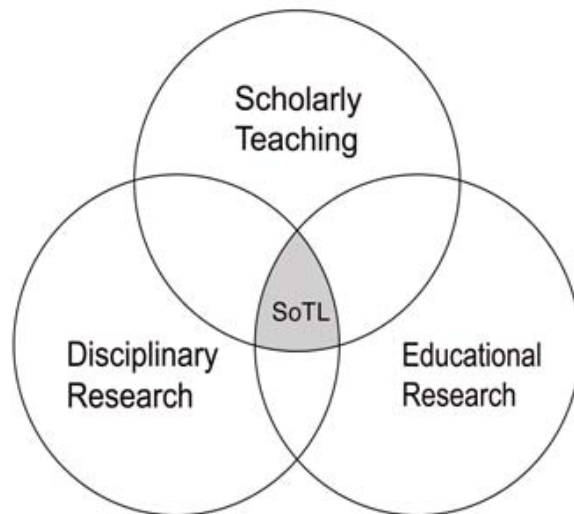


Figure 2. Depiction of SoTL from Taylor and Dawson (2006)

It is important to distinguish good teaching from scholarly teaching (McKinney, 2004) and the scholarship of teaching and learning. There is still much to be learned and gained by thinking outside the realm of one's area of expertise in order to gain insight into the practice of SoTL (Huber & Morreale, 2002; Weimer, 2008). Weimer (2006: 53) notes that a significant portion of pedagogical scholarship is experience-based, "[t]hat is, authors look at, write about, and draw lessons from their practice." There is now a growing body of SoTL that is created for the sake of SoTL, which suggests that the field is maturing.

McKinney defines SoTL as the systematic reflection or study of teaching and learning necessary to improve student learning, and the sharing of the results of this reflection and learning with others. She cites a study conducted by Kreber (2003) wherein regular faculty and staff conceived of SoTL as good and effective teaching, in contrast to the conceptions held by SoTL experts. The expert views related SoTL to peer review and scholarship in addition to scholarly teaching

(McKinney, 2004: 8). Faculty engaged in the scholarship of teaching and learning do so not only to improve teaching and learning within the classroom, but also to improve teaching and learning beyond the classroom.

McKinney's views closely reflect those of Hutchings and Shulman (1999) who argue that the scholarship of teaching is not synonymous with excellent teaching. It requires a kind of 'going meta' in which faculty frame and systematically investigate questions related to student learning — the conditions under which it occurs, what it looks like, how to deepen it, and so forth — and do so with an eye not only to improving their own classroom, but also to advancing practice beyond it. The scholarship of teaching also integrates the experience of teaching with the scholarship of research. It is the ongoing and cumulative intellectual inquiry, through systematic observations and ongoing investigations by faculty, into the nature of learning and the impact of teaching on it.

Martin, et al. (1999) argue that the scholarship of teaching consists of three related activities: engagement with the existing knowledge on teaching and learning, self-reflection on teaching and learning in one's discipline, and public sharing of ideas about teaching and learning within the discipline. In a subsequent publication, Martin, et al. (2000) describe SoTL as knowing the literature on teaching, improving teaching as a direct result of this improved knowledge, improving student learning by studying one's students and one's teaching, improving upon the knowledge of discipline specific SoTL literature, and improving student learning (and sharing this with others) through communication of one's own work on teaching and learning within that particular discipline. According to McKinney's distinctions, it could be argued that Martin's definitions describe scholarly teaching rather than SoTL, in part because he makes no reference to the sharing of lessons learned beyond the discipline.

The scholarship of teaching involves engagement with research into teaching and learning, the critical reflection of practice, and communication and dissemination about the practice (Healey, 2000: 169). According to McKinney, to be distinguished as SoTL this dissemination would also need to go beyond the confines of one's own area of subject expertise.

The purpose of the scholarship of teaching is to infuse teaching with scholarly qualities in order to enhance learning (Brew & Ginns, 2008: 535). Again, McKinney would draw a distinction here, adding that the enhanced learning would also need to go beyond the discipline specific level.

The SoTL models used in this study examine students and teachers as learners either along a continuum as Weston and McAlpine (2001) suggest or, as Akerlind (2007) points out, as a progression. Kreber and Cranton (2000) view SoTL as ongoing learning about teaching and the demonstration of such knowledge. Prosser (2008) summarizes by stating that SoTL is improving students' learning using evidence based approaches.

Differing definitions of SoTL also exist at the institutional level. At Illinois State University (1998), SoTL was conceptualized as "a systematic reflection on teaching and learning" that was then made public (para. 2, "Definition of," n.d.). Buffalo State College suggested that:

SoTL ...involves integrating the experience of teaching with the scholarship of research...producing a scholarly product out of those integrative activities... (through) ongoing and cumulative intellectual inquiry...systematic observation and longitudinal investigation by faculty... (para. 11, "Definition of," n.d.).

Eileen Herteis of Saint Mary's University (SMU) in Halifax, Nova Scotia has given various presentations on the scholarship of teaching. In a presentation at SMU in 2006, she noted that the Collective Agreement between SMU and the SMU Faculty Association includes a definition of the scholarship of teaching within the scholarship section:

The scholarship of teaching consists of original and innovative thought and analysis related to pedagogy and/or learning that is disseminated publicly for peers to review, critically evaluate, and apply, or recognition by one's peers internally and externally that an individual is a leader, or possesses outstanding stature or expertise, in the scholarship of teaching. Good teaching does not constitute the scholarship of teaching (Herteis, 2006).

The SMU definition notes that teaching is not the scholarship of teaching, a point that is sometimes missed.

The website of the Centre for Teaching and Academic Growth directed by Gary Poole at the University of British Columbia (UBC) indicates (under the section “Scholarly Programs”) that SoTL is key to understanding student learning, developing curricula, enhancing student learning and assessing which practices are effective. This applies to the Faculty Certificate Program on Teaching and Learning in Higher Education offered by Harry Hubball and Helen Burt.¹

Arreola, et al. (2003) point out that the professoriate should be characterized as meta-professional because of the various roles faculty are expected to play. These include roles within teaching, scholarly/creative activities, service and a special category of scholarship of teaching and learning. It is important to note that SoTL is an area that is traditionally not part of the professoriate, and that professors are adding this area to an already heavy workload. This speaks to the need for teaching and learning centres on campuses to help faculty advance their practice of SoTL. Graham (2007) reports on the creation of a University College for the Creative Arts formed by the merger of two art and design colleges in Statesboro, Georgia. The college has signified to both internal and external constituents the value it places on teaching and learning by appointing a Director of Teaching and Learning and generating a framework for the implementation of teaching and learning activities. Universities in Canada commonly have centres dedicated to teaching and learning. They are institutionally designed somewhat differently (e.g., independent versus part of the library or another existing administrative unit), but they all promote excellence in teaching and learning and assist faculty with SoTL activities

While discipline-specific scholarship is a given, it is important to look beyond one’s own discipline (Weimer, 2008). The norms for faculty development within specific disciplines are typically established and evaluated within one’s own area of expertise. In order to bridge the gap between applied research, practice, and

¹ See <http://www.tag.ubc.ca/programs/facultycertificate/approaches.php>

instructional methods, the implicit boundaries between individual areas of study must somehow be overcome. This is necessary in order to avoid the divisiveness that may result from setting pedagogical approaches against one another and to prevent the minimization of the complexity inherent in teaching and learning (Weimer, 2008).

A list of articles by discipline and key points is presented in Table 2 (Appendix). This table provides a sense of the wide range of topics covered under SoTL by various researchers.

4.2 Scholarship of Teaching and Learning

For those who are new to the idea of the Scholarship of Teaching and Learning (SoTL), navigating the literature related to SoTL can be a daunting task. An assortment of peer reviewed journals, web sites, policy documents, popular media and even blogs carry helpful information concerning SoTL practices. However, as expansive as the scholarly work on teaching and learning is, much of it remains uncharted. In part, the reason is that the current state of SoTL practice within Canada, North America and abroad goes well beyond discipline-specific research efforts (Healey, 2000; Weimer, 2006).

The origins of SoTL practices date as far back as Dewey's work (1960), which itself is called the theory of inquiry. SoTL became more widely known with the 1990 release of Boyer's groundbreaking *Scholarship Reconsidered*. Boyer introduced four dimensions to what is considered scholarship at the university level. These are the scholarship of discovery (what we have typically called research), the scholarship of integration (giving a larger meaning to our research in an interdisciplinary context), the scholarship of application (where we apply our research to the world), and the scholarship of teaching (where we apply to our teaching the same rigors of scholarship that we do to our research). Although Boyer did not definitively define SoTL, he is credited with identifying key characteristics of the scholarship of teaching that have proven foundational for work in subsequent years. For example, Boyer states that the university teacher draws on what is already known from experience and familiarity with the subject matter, and that this is the basis of scholarly inquiry of teaching and learning.

In *Scholarship Assessed*, Glassick, Huber and Maerhoff (1997) continue to explore the nature of SoTL as Boyer initially defined it, examining the role that institutions play in creating standards and developing assessment practices in support of SoTL. Since then, many others have followed suit, as evidenced by the works of Akerlind (2007); Huber and Hutchings (2005); Kreber (2006a); and Shulman (1999, 2000, 2002, 2004 and 2007).

As suggested earlier, it is limiting to look for examples of scholarly work related to teaching and learning only within one's area of expertise. In fact, it is important to examine the work being conducted in a range of disciplines in order to fully appreciate the pedagogical scholarship currently being conducted by colleagues within classrooms, institutions, and beyond (Holbrook & Devonshire, 2005; Weimer, 2006). As an example, postsecondary level teaching has evolved from a practice focusing primarily on professional development of teachers to a practice focusing on student learning outcomes, and to a practice focusing on the learning of both students and teachers. This shift is evidenced in the use of the term "learner-centeredness" (Akerlind, 2007; Harvey & Kamvounias, 2008; Hubball & Burt, 2004). We have moved from an emphasis on the teacher to an emphasis on the student, and now to an emphasis on both teacher and student as learners.

The scholarship of teaching and learning involves the careful study of, and reflection on, the practice of teaching and learning in order to provide continuous improvement to the practice of teaching and learning. Reflective practice can be combined with discussion and the sharing of experiences and lessons learned with peers (Warhurst, 2006). Discussions among colleagues further contribute to the development of a collective knowledge within a growing community of SoTL scholars (Richlin & Cox, 2004).

Barriers to student learning do not exclusively stem from the choices of the methods we use to teach (the how) or the subject matter or area of specialization of what we teach (the content); rather, they may reside in the breakdown of connections between lived experience and formal learning, between academy and society (Tinto, 1997). It has also been suggested that the barriers to student learning are due to breakdowns between the means and ends of problem solving (Lueddeke, 2008). While a true measurement of the magnitude of institutional change in support of SoTL practice has yet to be successfully realized, there are

studies underway that examine how specific developments and strategies within the university can contribute to the growth of institutional support of teaching and learning activities (Roberts, Oakey & Hanstock, 2007).

It is important to ground SoTL work in the literature and position it in relation to other scholarly work and traditional empirical study. In order to measure actual improvements in student and/or teacher learning outcomes, there needs to be appropriate rigor and validity within the research of the field. This is necessary if we aspire to move towards standards for the practice of this scholarship. In addition, in order to elevate the scholarship of teaching and learning to the level of institutional acceptance, there is a need for strong leadership and administrative support. In the pursuit of SoTL, the impetus needs to come from many places. Significantly, a groundswell of interest is now emerging with the advent of collaborative and cross-disciplinary dialogue; faculty members have begun to share their experiences and results with one another in an effort to advance their collective knowledge and to improve student learning outcomes. The advent of educational technologies, especially in areas of distance education and technology-supported learning, has also contributed to the development of SoTL.

The growing Canadian focus on SoTL can be seen in the establishment of the UBC Institute for the Scholarship of Teaching and Learning two years ago. Carl Wieman, a Nobel Prize winner, is now at UBC with major financial backing to undertake the development of SoTL (Epstein, 2006). Wieman has been giving presentations across Canada on the importance of teaching, especially in first year science courses. His research is focused on ways of improving teaching and bringing the profile of teaching in line with that of research at universities.

In April 2005, the Centre for Higher Education Research and Development (CHERD), a national symposium for university and college administrators on SoTL, was held at the University of Toronto. Two years later, Gary Poole, Lynn Taylor and John Thompson gave an invited address at the 2007 Congress of the Humanities on “Using the Scholarship of Teaching and Learning at Disciplinary, National, and Institutional Levels to Support Quality PSE.”

5.0 Framework of Understanding – Five Models

In this section, five grounded theoretical models that show the development of the scholarship of teaching and learning among faculty have been selected. These will be used to help design the research project that will be undertaken in Phase 2, along with questions based on Brookfield's other three lenses: self, students and colleagues. The articles were selected because the models could be operationalized and used in the questionnaire development.

5.1 Model 1 – Trigwell, et al. (2000: 155), like others, discuss Boyer's *Scholarship Considered* and the four types of scholarship:

- (1) discovery – close to the old idea of research;
- (2) integration – involves making connections across disciplines and placing the specialties in a larger context;
- (3) application – goes beyond the application of research and develops a vital interaction and informs the others; and
- (4) teaching – both educates and entices future scholars by communicating the beauty and enlightenment at the heart of significant knowledge.

The authors define scholarly teaching as making “transparent how we have made learning possible” (156). Based on a phenomenographic research approach, they identify “five categories of description of approach to the scholarship of teaching” (159):

- (a) knowing the literature on teaching by collecting and reading that literature.
- (b) improving teaching by collecting and reading the literature on teaching.
- (c) improving student learning by investigating the learning of one's own students and one's own teaching.
- (d) improving one's own students' learning by knowing and relating the literature on teaching and learning to discipline-specific literature and knowledge.
- (e) improving student learning within the discipline generally, by collecting and communicating results of one's own work on teaching and learning within the discipline.

The higher order approaches (c, d and e) focus on students rather than the teacher, a theme that runs throughout the literature on the scholarship of teaching and learning. The model of the scholarship of teaching is based on four dimensions (163):

- (a) the extent to which they engage with the scholarly contributions of others, including the literature of teaching and learning of a general nature, and particularly that in their discipline;
- (b) the focus of their reflection on their own teaching practice and the learning of students within the context of their own discipline: whether it is unfocused, or whether it is asking what do I need to know and how do I find out;
- (c) the quality of the communication and dissemination of aspects of practice and theoretical ideas about teaching and learning in general, and teaching and learning within their discipline; and
- (d) their conceptions of teaching and learning: whether the focus of their activities is on student learning and teaching or mainly teaching.

The authors summarize these four dimensions as follows (167):

- (a) being informed about teaching and learning generally and in the teachers' own discipline;
- (b) reflection on that information, the teachers' particular context and the relations between the two;
- (c) the focus of the teaching approach adopted; and
- (d) communication of the relevant aspects of the other three dimensions to members of the community of scholars (167).

Trigwell, et al. note that "all four dimensions are considered to be a necessary part of the scholarship of teaching" (167). Reflection is a key aspect of this model, as it is in many others, such as Kolb's experiential education model.

5.2 Model 2 – Weston and McAlpine (2001) propose three phases in the scholarship of teaching and learning. As professors are experts in their disciplines, "Phase One is an intention to grow and develop knowledge about one's own teaching" (90). Phase Two involves discussing teaching with

colleagues. Phase Three “is characterized by an intention to share expertise and develop scholarly knowledge about teaching that has a significant impact on the institution and the field” (90). The model is called a “Continuum of Growth toward the Scholarship of Teaching” (91), and the elements move from less complex to more complex (See Table 3 in the Appendix).

Moving across the three phases, activities become more complex and faculty become more engaged in the scholarship of teaching and learning. The authors suggest that “professors can move in two directions in the continuum: within a phase, indicating a growth in complexity; and across phases, indicating a growth toward scholarship” (90).

This model is very helpful in terms of understanding faculty development in the scholarship of teaching and learning. According to the authors, units and centres that assist faculty with their teaching “must do more to support professors’ transition into Phase Three, growth as scholars” (97).

5.3 Model 3 – Kreber and Cranton (2000) pose questions for faculty to ask themselves in terms of three levels of reflection (content, process and premise) applied to three domains of knowledge (instructional, pedagogical and curricular):

Content reflection focuses on the description of the problem. Process reflection focuses on the strategies and procedures of problem solving, the assessment of the adequacy of our efforts, and similarities and differences between what we are currently experiencing and our prior learning. In premise reflection, we question the merit and functional relevance of the question (478).

The other dimension includes instructional, pedagogical and curricular knowledge. Instructional knowledge is primarily technical knowledge about course design (479). Pedagogical knowledge focuses on how people learn and how learning can be facilitated. Finally, curricular knowledge considers goals and rationale, how courses fit together to form a program, and the purpose of education (480). Considered in its entirety, the model allows for the development of practices within nine categories as shown in Table 4 (Appendix).

Kreber and Cranton (2000) also discuss Habermas's (1971) notions of instrumental, practical and emancipatory forms of knowing. Habermas's position is that knowledge is based on historical and existing social structures:

According to Habermas, the three basic human interests we hold, our interest in controlling nature (the technical interest), social harmony (the practical interest), and individual growth (the emancipatory interest), each have their origin in a different problem related to human survival...The three human interests, the technical, practical, and emancipatory, develop in three different social media: work, interaction (through language) and relations of power (Kreber & Cranton, 2000: 482).

In summary, Kreber and Cranton propose an understanding of the scholarship of teaching that considers both learning about teaching and demonstration of that knowledge (492).

5.4 Model 4 – Theall and Centra (2001) identify activities characteristic of teaching scholarship, and conclude that “[t]he scholarship of teaching can exist at the level of the individual teacher, the department, or the institution” (36). For our purposes in Phase 2 of our study, we are looking at just the individual teacher level, and the criteria and sources of information for the teacher level are summarized in Table 5 (Appendix). There are three areas or dimensions of the scholarship of teaching: shared public account of teaching, emphasis on learning outcomes and relevant teaching practices, and discipline and pedagogical knowledge and innovation (37-39). In order to assess the scholarship of teaching, Theall and Centra (2001) identified criteria in the form of questions (see Table 5 – criteria column). They also suggest sources of information for the three levels the individual identifies with: teacher, department and institution. For the individual level, they suggest that “the self-report or teaching portfolio could provide evidence of classroom assessment projects, teaching methodologies, and personal reflections on teaching” (40). Course syllabi, assignments, examinations, student and peer evaluations all provide information about the teacher, and “[t]he criteria and sources of information discussed provide valid evidence and are the basis for valid decisions” (41).

5.5 Model 5 – Akerlind’s (2007) model shows a developmental hierarchy ranging from teacher-centred to student-centred, and “five qualitatively different approaches to growing and developing as a university teacher emerged from analysis of the interview transcripts, varyingly focused on” the following outcomes for teaching development (27-29):

- (1) A better knowledge of one’s content area in order to become more familiar with *what to teach* (27) – focuses on the content that a teacher needs to impart to her/his students.
- (2) Practical experience as a teacher, in order to become more familiar with *how to teach* (28) – relates to becoming experienced as a teacher. The focus is on the skill of teacher rather than the content of what is taught.
- (3) A repertoire of teaching strategies in order to become more *skilful as a teacher* (29) – an extension of number 2 – it relates to the skill of teaching with a focus of developing a repertoire of different techniques.
- (4) Finding out which teaching strategies do and don’t work for the teacher, in order to become more effective as a teacher (29) – about refining the teacher’s repertoire of techniques so that she or he learns which techniques work best.
- (5) Continually increasing one’s understanding of what works and doesn’t work for students in order to become more *effective in facilitating student learning* – moves the focus from teacher to student and involves learning which teaching and learning techniques work best for students.

Throughout the preceding model, the focus moves from the teacher to the student, and from information to understanding, across the five levels. This is a common theme in the SoTL literature. Some authors call this a “teacher-centred” versus a “student-centred” orientation, but a more inclusive term that encompasses both is “learner-centred.” Some universities and colleges, in fact, now characterize themselves as being learner-centred.

This section, and the five models of SoTL it describes, will be used with other material to help develop the research tools for Phase 2.

6.0 Initiatives Underway in Universities in Canada and Other Geographic Regions

6.1 Canada

The Canadian Summit on the Integration of Research, Teaching and Learning held two annual summits in 2005 and 2006 at the University of Alberta. These summits brought together scholars from Canadian and international universities for discussions about the integration of teaching and research as a fundamental pillar of the undergraduate learning environment (Hoddinott & Wuetherick, 2006).

In 2007, a national symposium was held to develop a national framework document to raise the profile of SoTL and encourage support of SoTL across institutions and within individual teaching practices. Lynn Taylor of Dalhousie University and Teresa Dawson of the University of Victoria took the lead on this initiative. This framework will enhance understanding of, and interest in SoTL, which will be further supported by the launch of the new *Canadian Journal for the Scholarship of Teaching and Learning (CJSOTL)* in Spring 2009. This open access electronic journal will be the official journal of the Society for Teaching and Learning in Higher Education, and will be housed at The University of Western Ontario. The co-editors are Dianne Bateman (McGill University & Champlain St-Lambert College) and Dieter Schönwetter (University of Manitoba), with Ken Meadows (The University of Western Ontario) serving as managing editor.

In April 2008, HEQCO sponsored a workshop on *Taking Stock: Symposium on Teaching and Learning Research in Higher Education* in Guelph, Ontario where expert speakers from around the world presented papers on various aspects of SoTL. The keynotes were presented by Noel Entwistle and Keith Trigwell, and the proceedings will be published later this year.

The International Society for the Scholarship of Teaching and Learning focuses specifically on the promotion of SoTL, and the Society for Teaching and Learning in Higher Education annual conferences highlight work being done both in Canada, and in other countries.

According to a recent research report conducted by Dr. Thomas Carey (2008), Knowledge Exchange Networks enhance teaching and learning by providing tools and support structures that can foster and mobilize exemplary teaching practices. According to the study, Knowledge Exchange Networks promote reflection on personal experience within one's own discipline; offer opportunities for scholarly documentation and demonstration of pedagogical content knowledge; and provide collections of collaborative teaching and learning expertise resources. The report provides an analysis of current models (and related research), and offers insights leading to strategies that will grow and mobilize knowledge important to exemplary teaching. Recommended next steps include identifying resources and planning for more dynamic knowledge exchange for exemplary teaching, in addition to promoting further knowledge building collaborations.

6.2 Activities within Ontario Universities Affiliated with this Project

6.2.1 Lakehead University

Lakehead University established its Instructional Development Centre in 2005. The Centre provides a wide range of resources to support teaching and learning across campus, including SoTL, through workshops, on-line resources, print resources, one-on-one consultation and consultation on a wider scale to support curriculum design and re-design. Some examples of SoTL ongoing at Lakehead are various research projects on Community Service Learning, and another research project that examines the ways in which faculty and students conceptualize and use course syllabi.

Lakehead University offers a Distinguished Instructor Award each year; the recipients are those who have demonstrated excellence over a number of years in teaching as well as a commitment to teaching and learning across the campus. Lakehead also gives out a number of Contribution to Teaching Awards each year for faculty who have demonstrated excellence in teaching over a two-year period, with the nominations coming from students. The Centre also mounts a one-day symposium each year which features a keynote speaker as well as Lakehead

faculty members who speak about how their teaching practices relate to the theme of that year's symposium. Some themes in the past have been Teaching and Human Rights, Teaching Critical Thinking, and Teaching as Activism.

6.2.2 Laurentian University

At Laurentian University, stewardship of teaching and learning is the responsibility of the Senate Committee on Teaching and Learning chaired by the University Vice-President, Academic Affairs. Through the work of this committee, faculty (French, English and Aboriginal) have a voice in discussing and making recommendations to Senate on issues that influence teaching and learning on campus. Laurentian's Teaching Excellence program, also under the auspices of the Office of the Vice-President, Academic Affairs, recognizes full-time faculty who have demonstrated excellence over an extended time in their role as educators.

Several sectors and specific schools/units within the university support important work in relation to teaching and learning, including the Learning Commons; the Centre for Continuing Education; the School of Nursing; the Council of English Language Programs; the Office of the Vice-President, Academic; and the Offices of Native Academic Affairs and Native Student Affairs. The Learning Commons, situated in the Desmarais Library, provides a cross-section of support for students and faculty within the context of Laurentian's bilingual program of credit-based courses and programs. The Centre for Continuing Education is proud of its longstanding commitment to instructional design and educational development, and has received national recognition for this commitment, as well as for individual programs. One of the university's largest users of e-learning technologies is the School of Nursing. This is due to the School's delivery of several nursing programs built on the principles and practices of distributed learning. As such, the School has a dedicated educational technologist and a faculty member whose primary area of expertise includes instructional design and distributed learning settings. This faculty member is highly active within the educational and e-learning communities across Canada.

The Council of English Language Programs (CELP) is responsible for faculty and faculty council pedagogy for Anglophone programs, and works closely with the

Conseil des Programmes en Français, its French language counterpart. CELP is a Senate committee chaired by the Vice-President, Academic Affairs. CELP implements the new Undergraduate Program Review Audit Committee (UPRAC) policy, including the Guidelines for Undergraduate Degree Expectations, a pedagogical shift of significant importance at Laurentian University. Finally, the Offices of Native Affairs and Native Student Affairs provide unique teaching and learning supports to Aboriginal students and faculty.

While Laurentian has not yet realized its goal of a dedicated teaching and learning centre, many of the components of such a centre exist on the campus in the work and expertise of individual units and persons. The university continues to plan for a unit where faculty and others in teaching and learning may enjoy the support of a centralized environment.

6.2.3 Queen's University

Queen's University became involved in 2006 in response to a call for institutional leadership initiatives from the Centre for the Advancement of the Scholarship of Teaching and Learning (CASTL). Exploring the theme "Building SoTL Communities," six other international postsecondary institutions joined Queen's University and became active participants: Ohio State University (coordinating institution); Dartmouth College; Kwantlen University College (in April of 2008, Kwantlen was granted university status and is now to be known as Kwantlen Polytechnic University); Ryerson University; Southeast Missouri State University; and University of Glasgow.

Chris Conway of Queen's University is also the lead on a group of projects that is being funded by the Higher Education Quality Council of Ontario to investigate the National Survey of Student Engagement (NSSE). "Implementing Engagement Improvements through Targeted Interventions" includes 11 institutions looking at a range of interventions.

Joy Mighty is the Director of the Centre for Teaching & Learning at Queen's University and current President of the Society for Teaching and Learning in Higher Education.

6.2.4 Ryerson University

Ryerson University's Faculty of Community Services (FCS) has created the Centre for the Advancement of the Scholarship of Teaching and Learning to facilitate and expand the scholarship of teaching, integration and application related to the SoTL. Overarching goals for the Centre include:

- To foster inquiry and leadership for the improvement of student engagement and learning to advance professional preparation in community service;
- To enhance the scholarship of discovery, teaching, application and integration focused on professional preparation in community service;
- To promote academic and organizational change in support of the scholarship of teaching and learning. For faculty within the Faculty of Community Services, SoTL includes research initiatives (scholarship of discovery), teaching and learning practices (scholarship of teaching), curriculum development, active engagement with professional partners in the wider community (scholarship of integration and application).

As noted earlier, Ryerson University is also part of the Carnegie Working Group: Building Scholarship of Teaching and Learning Communities. There are seven diverse institutions whose purpose is to work collaboratively to develop local, multidisciplinary communities, integrated with others worldwide:

- [Ryerson University](#)
- [Southeast Missouri State University](#)
- [The Ohio State University](#)
- [Kwantlen University College](#)
- [University of Glasgow](#)
- [Queen's University](#)
- [Dartmouth College](#)

The overall goals of the Carnegie Leadership Program are consistent with the FCS Centre for the Advancement of the Scholarship of Teaching and Learning:

- Influencing academic culture to recognize a continuum of Scholarship of Teaching and Learning activities;
- Establishing common and rigorous outcome measures with personal, professional, and programmatic implications;

- Disseminating successful Scholarship of Teaching and Learning initiatives;
- In these ways we are building awareness, understanding, support, and practice of Scholarship of Teaching and Learning within and beyond local communities.

Ongoing Initiatives and Exemplars:

- Ryerson University: Scholarship of Teaching and Learning in relation to professional practice
- Queen's University: public conversations about "How is Scholarship of Teaching and Learning changing in your discipline?"
- Dartmouth College: "librarian as co-instructor" 2-day faculty institute
- University of Glasgow: research-informed teaching
- SouthEast Missouri State University: teacher-scholars
- Ohio State University: engages faculty in structured inquiry into the outcomes of teaching practice
- Kwantlen University: web-based journal profiling Scholarship of Teaching and Learning

6.2.5 *The University of Western Ontario*

The University of Western Ontario has several initiatives to promote both the enhancement of teaching and learning within the university and SoTL in a broader sense. The Teaching Support Centre (TSC), part of Teaching and Learning Services, provides support to faculty members and departments by presenting workshops to assist with the development of new curriculum or the implementation of new pedagogies; facilitating peer consultations; and organizing the biannual conferences that showcase innovations in teaching. The centre also has a faculty associate, Dr. Allen Pearson, whose mandate is to advance SoTL through the development of a SoTL learning community at Western. Working collaboratively with the Educational Researcher in Teaching and Learning Services, Dr. Ken Meadows, Pearson administers an annual small grants fund to

promote research on teaching (\$500.00 to \$2,500.00). Examples of the projects funded can be found on the centre's website.² The results of these studies are also presented to the campus community at their biannual conferences on teaching and learning and in the centre's newsletter. The Teaching Support Centre also has a Fellowship in Teaching Innovation award which provides \$10,000 annually for a faculty member to perform research on teaching and learning. A list of projects can be found on the TSC website.³ The centre staff also facilitate the SoTL by taking leadership roles with the *Canadian Journal for the Scholarship of Teaching and Learning* (official journal of the Society for Teaching and Learning in Higher Education), with Dr. Meadows serving as the Managing Editor. As noted earlier, this electronic journal will be housed at Western.

In addition, Tom Haffie, another faculty associate with the TSC, has been working on several SoTL projects. First, along with other staff of the TSC he has been investigating the use of clickers in the classroom. The Press Western website⁴ outlines the support available to faculty and students who wish to find out more about the use of clickers in the classroom or the research projects on clickers. Secondly, both Tom Haffie and Ken Meadows are engaged in large study of bioliteracy in the first year Biology classes. This is a HEQCO funded project.

Scholarly teaching is fostered at Western by having three 3M Teaching Fellows currently working as Faculty Associates in the TSC. Finally, SoTL is promoted to Western graduate students in both the graduate course on university teaching offered by the TSC and in workshops offered through the centre.

6.2.6 University of Guelph

A number of research projects funded by HEQCO are underway at the University of Guelph. These projects explore areas such as Supported Learning Groups, NSSE, Faculty Engagement and Skill Development in Student Services Programs.

² See http://www.uwo.ca/tsc/pdf/2007-2008_RT_grants.pdf

³ See <http://www.uwo.ca/tsc/pdf/Fellowship%20in%20Teaching%20Innovation%20Recipients.pdf>

⁴ See <http://presswestern.uwo.ca/>

Jacqueline Murray and Alastair Summerlee (2007) recently conducted a research study of the first year seminars offered at Guelph. They found that students who took their problem-based learning first year seminar course did better than their peers in subsequent years. The research showed the effectiveness of problem-based learning. Professor Summerlee is the President of the University of Guelph and a 3M scholar.

Like other teaching and learning centres in Canada, Teaching Support Services advocates and runs various programs on SoTL. The programs include faculty learning circles, graduate student workshops and a graduate student day in September, a yearly conference, a credit course on university teaching for graduate students, and a course redesign institute for faculty in the summer. The College of Arts has established a certificate program in teaching for graduate students who engage in a number of learning activities.

Peter Wolf and Julia Christensen Hughes edited an issue of *New Directions in Teaching and Learning* entitled “Curriculum Development in Higher Education: Faculty-Driven Processes and Practices” which contains ten articles written primarily by Canadian authors. Peter Wolf is Associate Director of Teaching Support Services, and Dr. Julia Christensen Hughes is the Dean of the College of Management and Economics at Guelph and is a former Director of Teaching Support Services. She is also a past President of the Society for Teaching and Learning in Higher Education. The current Director of Teaching Support Services is Frederick Evers, a 3M Award winner.

6.3 Other Provinces

Kwantlen Polytechnic University has a CASTL Leadership Project and Loyola Marymount is the coordinating institution for a CASTL group. Included in the group of 14 CASTL affiliates are Purdue University, Park University, Thompson Rivers University in British Columbia, University of Manitoba, Maryville University, several others and one national centre for science and civic engagement. Kwantlen Polytechnic University also publishes an online journal devoted to the scholarship of teaching and learning called “Transformative

Dialogues: Teaching and Learning Journal”.⁵ This journal was established in 2007 and has published articles by renowned SoTL scholars such as Dr. Richard Gale of Royal Roads University and Dr. Harry Hubball of the University of British Columbia.

It is noted on CASTL's homepage that “CASTL represents a major initiative of The Carnegie Foundation. Launched in 1998, the program builds on a conception of teaching as scholarly work proposed in the 1990 report, *Scholarship Reconsidered*, by former Carnegie Foundation President Ernest Boyer, and on the 1997 follow-up publication, *Scholarship Assessed*, by Charles Glassick, Mary Taylor Huber and Gene Maeroff. The CASTL Program seeks to support the development of a scholarship of teaching and learning that: “fosters significant, long-lasting learning for all students; enhances the practice and profession of teaching, and; brings to faculty members' work as teachers the recognition and reward afforded to other forms of scholarly work.”

As noted in section 4.2, there is wide support for SoTL across Canada. The establishment of the UBC Institute for the Scholarship of Teaching and Learning is an excellent example. Carl Wieman, a Nobel prize winner, is now at the University of British Columbia with major financial backing to undertake the development of SoTL (Epstein, 2006). Weiman's research is focused on ways of improving teaching, especially in first year courses.

6.4 Other Geographic Regions

6.4.1 New Zealand

A research project led by Dr. Peter Gossman, Centre for Educational and Professional Development, revealed that many Auckland University of Technology (AUT) staff were engaged in scholarship of teaching and learning projects. A colloquium was held to provide an occasion for (a) sharing experiences and outcomes associated with some of these projects at AUT University, and (b) identifying initiatives that might be taken at the institutional

⁵ See http://kwantlen.ca/TD/Current_Issue.html

level to encourage and support staff engagement in the scholarship of teaching and learning.

6.4.2 United Kingdom

The Higher Education Funding Council for England (HEFCE) funds teaching and research activities conducted by colleges and universities in an effort to promote high quality education and research, and good practice in teaching. In Scotland HEFCE has established the quality enhancement themes framework⁶ to enhance teaching and learning in post secondary education. Led by the Scottish Higher Education Enhancement Committee, they have an annual enhancement themes conference where they discuss research on innovations in teaching and learning. For the conference held in 2008, the theme was “The first year: engagement and empowerment.” Professor Tom Haffie from the University of Western Ontario gave a plenary session entitled “Using Clickers to Enhance Student Engagement in Very Large Classes.”

At the University College for the Creative Arts (UCCA) in England, an institutional audit led to a commitment to bridge the perceived gap between research and teaching and the knowledge/practice paradigm. Through a strategy known as Teaching Learning and Assessment, a framework was established in support of teaching and learning activities and to respond to institutional goals and areas of inquiry. This led to recognition of the institution as a centre of learning. This strategy has created an opportunity to develop a culture of SoTL practices within the creative arts disciplines (Graham, 2007).

6.4.3 United States

The Carnegie Academy for the Scholarship of Teaching and Learning (CASTL) is funded by the Pew Charitable Trusts and the Carnegie Foundation for the Advancement of Teaching. As an organization, it provides support for teaching and learning activities through national fellowships, development of programs, and support for communities of scholars. A number of Canadian universities are members of CASTL.

⁶ See <http://www.enhancementthemes.ac.uk/themes/Guide/default.asp>

The Hanover Research Council has recently released a report entitled “Instructional Technologies and Academic Transformation in Higher Education” that compares various forms of instructional methods as discussed by the National Center for Academic Transformation. The report examines five models: the Supplemental Model (traditional course with some material on-line), the Replacement (Hybrid) Model (replaces some in-class meetings with on-line), the Emporium Model (eliminates all class meetings and replaces them with a learning resource center featuring on-line materials and assistance), the On-line Model (fully on-line), and the Buffet Model (customizes the learning environment for each student).

7.0 Conclusions

University faculty engage in teaching, research and service – a model as old as the concept of the university. Universities are sometimes criticized for putting more emphasis on research than teaching, and it is argued that poor teachers with good research records can succeed at university. Fortunately, more emphasis is being applied to teaching at universities across Canada. The widespread existence of teaching and learning centres on Canadian campuses, certificates in teaching for graduate students, the use of teaching dossiers and other forms of teaching evaluation all show an increase in the perceived importance of the quality of university teaching. In this project we hope to advance the understanding of how faculty learn how to teach in order to advance the programs and materials promoted by teaching and learning centres.

We used Brookfield's (1995) four lenses of how faculty learn to teach – self, students, colleagues and theory – to frame the review of literature. For the review of theory we focused on the scholarship of teaching and learning. We found in the review of literature that SoTL is a growing field within academia, establishing itself as an element of teacher development.

When learning about teaching from a “self” point of view we are taking on the role of “other” (Brookfield, 1995: 29). We become connected to how our students view faculty as teachers. Investigating our autobiographies is typically the first step in learning how to teach. The second lens, students, allows faculty to see themselves the way their students see them. It is critical that teachers learn how to determine what students view so that faculty know what students are learning. What a student and his/her teacher see as important in course material can often diverge quite substantially. Thirdly, faculty learn about their teaching from their colleagues through both formal and informal processes. In the formal process, faculty are evaluated for promotion and tenure based, in part, on their expertise in teaching. Informally, faculty often ask one another how to tackle a particular concept, method, or principle that is difficult to explain to students. Finally, faculty learn from a variety of educational theories that can be used to learn how to teach. This also opens up the field of SoTL, which is now a substantial component of educational theory.

We focused on five models from the literature as one element for developing the questions in the survey in Phase 2. These models provide a wide range of concepts that can be compared and analyzed. A common theme throughout these models is movement away from teacher-centred and student-centred towards more learner-centred approaches. Higher education should be viewed as an enterprise that involves students, faculty and staff, all as learners.

In addition to using the theory to develop the survey questionnaire, clarification of further issues were identified through focus group discussions of award winning teachers. The focus groups were conducted during the month of April 2009. These findings then served to further inform the questionnaire design. The on-line faculty survey and associated analysis was conducted in June 2009. The overall report compiling the results from across the six universities will be prepared and submitted to the Council by August 31, 2009. The report will examine the issues of faculty engagement across a range of variables such as age, cohort, etc. and will examine how teachers first learned to teach, how they are currently learning about teaching and what the future of teaching and learning may hold.

To improve the overall quality of teaching and learning in Ontario, faculty can engage the services of teaching and learning centres. A wealth of information about good teaching exists that faculty can access for their development. Teaching and learning centres need to determine the best mix of services in order to engage faculty in the pursuit of excellence in teaching.

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