THRESHOLD CONCEPTS IN THE SCHOLARSHIP OF TEACHING AND LEARNING: A Phenomenological Study of Educational Leaders in a Canadian Research-Intensive University Context

by

Andrea Suzanne Webb

B.A., The University of British Columbia, 1998

B.Ed., The University of British Columbia, 1999

M.A., Simon Fraser University, 2007

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF

THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

in

THE FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES

(Curriculum Studies)

THE UNIVERSITY OF BRITISH COLUMBIA

(Vancouver)

March 2015

Abstract

This research study explored the lived experience of educational leaders in a research-intensive context as they engage in the Scholarship of Teaching and Learning (SoTL) in the University of British Columbia's Faculty Scholarship of Teaching and Learning Leadership Program (UBC SoTL Leadership Program). The study was guided by two research questions: (1) What is the nature and substance of threshold concepts in SoTL and (2) What enhances or constrains educational leaders' ability to navigate threshold concepts in SoTL? A qualitative phenomenological inquiry approach was employed over a nine-month period to explore educational leaders' experience with SoTL. Data collection and analysis were informed by van Manen's interpretive phenomenology and data sources included a questionnaire, participant observation in classroom sessions, interviews with members of the 2013-2014 cohort and past graduates of the program, and participants' ePortfolios.

The research questions sought to explore threshold concepts in SoTL as well as factors that enhance or constrain the ability of institution-level and Faculty-level educational leaders to navigate threshold concepts in the scholarship of teaching and learning in a research-intensive university. Seven themes emerged from the analysis as potential SoTL threshold concepts for the participants: conceptions of research, subjectivity, institutional culture, studentness, boundary crossing, teaching as scholarship, and the disposition of a SoTL scholar.

The concepts were examined in light of four defining characteristics of threshold concepts. The first five of the themes exhibited significant evidence of the characteristics and were categorized as threshold concepts. The final two themes exhibited some of the characteristics and warrant further inquiry. Further data analysis indicated that educational

leaders' ability to navigate threshold concepts was enhanced and constrained by their understanding of the nature of SoTL and disciplinary and institutional cultures in which they undertake their daily work.

These results offer important insights for understanding how threshold concepts are manifest in a SoTL based faculty development program for institution-level and Faculty-level UBC SoTL Leadership Program educational leaders and insights into how these concepts might have been navigated in such contexts.

Preface

This research was designed, carried out, and analyzed by the author with guidance from the author's supervisory committee. A transcriptionist was used for some of the interviews.

This research study obtained the approval of the UBC Research Services Research Ethics Board (Behavioural Research Ethics Board; UBC BREB Number: H13-01299).

Table of Contents

List of Tables

List of Figures

List of Abbreviations

CASTL - Carnegie Academy for the Scholarship of Teaching and Learning

EDCP – Department of Curriculum and Pedagogy, Faculty of Education, UBC

FN – Field Notes. This is used to correspond to the specific classroom session of the UBC SoTL Leadership Program (i.e. FN 3 would be the third session).

ISSoTL – International Society for the Scholarship of Teaching and Learning

QR – Questionnaire Response. This is used to correspond to both the data provided in the questionnaire and as an anonymous identifier for the follow up interview with past graduates.

SoLE - Scholarship of Leadership in Education

SoTL – Scholarship of Teaching and Learning

STLHE – Society for Teaching and Learning in Higher Education

UBC – The University of British Columbia

UBC SoTL Leadership Program – University of British Columbia Faculty Scholarship of Teaching and Learning Leadership Program

Glossary

Capstone project: The capstone proposal and presentation are key elements of the UBC Faculty Certificate Program in the Scholarship of Teaching and Learning portfolio.

Curriculum: Curriculum refers to a particular course of study. It is often a selection of relevant content structured according to the learning context and organized to guide learners through a process.

Educational leader: An educational leader is a faculty member whose employment involves high stakes decisions regarding curricular and pedagogical initiatives at a departmental, faculty, or institutional level. In this study context, UBC's educational leaders were defined as those tenured faculty members (e.g., associate deans, program leaders, curriculum chairs, pedagogical leaders) who were strategically selected and nominated by each UBC Dean to participate, as Faculty-specific representatives, in the UBC cohort of the *International Faculty SoTL Leadership Program* (http://international.educ.ubc.ca/SOTL/). Nominated UBC educational leaders receive a specific scholarship to engage in SoTL Leadership initiatives to strategically impact the quality of teaching, learning and/or curriculum practices within Faculty-specific or Institutional-level contexts (Hubball, Clarke, Webb, & Johnson, 2015; Lindle; 2006). Many of the educational leaders at UBC are recognized for their leadership and disciplinary expertise, yet are missing the theoretical grounding in the scholarship of teaching, learning, and curriculum practice in higher education (Hubball, Lamberson, & Kindler, 2012).

Epistemology: The beliefs about how one acquires knowledge. Epistemology is the theory of knowledge, including its theoretical perspective and commensurate methodologies (Crotty,

1998). It incorporates a person's beliefs about the criteria for and the process of knowing, therefore epistemological shifts bring into question personal certainty of knowledge.

ePortfolio: An electronic portfolio represents a purposeful collection of authentic and diverse evidence of learning over time and it is used to demonstrate growth and competency, focus thinking, and act as a site for translating theory into practice (Pitts & Ruggirello, 2012). In the UBC SoTL Leadership Program, the cohort members are required to complete an ePortfolio with 6 sections; a Scholarly Educational Leadership Dossier, Thematic Review of Educational Leadership literature, Peer Review Reporting, a SoTL Leadership Proposal, a SoTL Leadership Presentation, and a Meta analysis.

Faculty: The word faculty is used to denote a structural unit within the university.

Faculty Member: A faculty member is an individual who resides in a Faculty. They are appointed to tenure, tenure-track, or instructor positions.

Interdisciplinary: combining two or more academic disciplines or fields of study. Biochemistry represents an interdisciplinary approach to a field.

Multidisciplinary: composed of several, usually separate, fields of study or expertise. A multidisciplinary cohort brings together faculty members from diverse academic disciplines.

Ontology: One's view of reality. Ontology includes one's assumptions about the nature of reality and claims about what exists. Grix (2004) suggests that it is important to understand the philosophical underpinnings that inform the research decisions.

Peer review of teaching: For the purposes of the UBC SoTL FCP portfolio, participants are required to complete one review of a colleague's teaching or curriculum practice and be reviewed themselves.

Pedagogy: The art and science of teaching, pedagogy is the methods of lesson, course, and program delivery.

Teaching Dossier: A teaching dossier is a summary of major teaching accomplishments. It is intended to provide short statements describing the range and attributes of teaching and can be used to support an applicant's package for promotion and tenure. For the purposes of the UBC Faculty Scholarship of Teaching and Learning Leadership Program, the scholarly educational leadership dossier is one section of ePortfolio. This section is often completed first as many members of the cohort are familiar with this style of document.

The Scholarship of Teaching and Learning: The scholarship of teaching and learning is a rigorous, literature informed, and peer reviewed framework for investigating teaching and learning in higher education (Boyer, 1990; Glassick, Huber, & Maeroff, 1997; Hutchings & Shulman, 1999). It is methodologically flexible and open to many types of inquiries into pedagogical, curricular, disciplinary, and institutional contexts (Hubball & Clarke, 2010; Hubball, Pearson, & Clarke, 2013; Huber & Hutchings, 2005; 2006).

Threshold Concepts: Threshold concepts (Meyer & Land, 2003; 2005; 2006) are broadly defined as portals to conceptual understanding, "opening up a new and previously inaccessible way of thinking about something" (Meyer & Land, 2003, p. 1). A concept is considered threshold if it leads to a qualitatively different view of the subject matter. The key characteristics of a threshold concept are transformative, irreversible, integrative, bounded, and troublesome. Mastery of these threshold concepts presents intellectually and personally transformational experiences.

Research - intensive university: Gerhard Casper, then President of Stanford University, spoke of the research-intensive university as "an institution that meets three criteria: it selects its

students; it is primarily dedicated to the search for knowledge; and it is marked by a spirit of critical inquiry" (Casper, 1998). These research-intensive universities are separate from those focused on teaching as they offer unique contributions - a focused and enduring commitment to the highest-quality teaching and research, and the pursuit of innovation. Casper saw the research-intensive university as the place where the best researchers are engaged in teaching, often through collaborative methods, the brightest minds.

Acknowledgements

First, I would like to extend acknowledgements to my committee; Dr. H. Hubball, who knew just when to ask questions and when to leave me alone; Dr. A. Clarke, for always probing further; Dr. M. Porath, for acting as my critical friend. Thank you does not seem sufficient.

Next, I owe particular thanks to the participants of this study. They were open and frank on their experience and generous with their time. Their insights and reflections are the hallmark of educational leaders.

Thanks to the faculty, staff, and my fellow students in the Department of Curriculum and Pedagogy. I owe particular thanks to Ashley Welsh, Ash Shaw, and Marion Pearson who have offered their eyes, ears, and margaritas to this project.

And finally, special thanks to Tylor and my family, who have supported me through my educational journey, and specifically through this last part.

Dedication

This thesis is dedicated to my mother, who taught me that even the largest task could be accomplished if it is done one step at a time, and to Tylor, who knew that I could do it even when I didn't think so.

Chapter 1: Introduction

1.1 The Scholarship of Teaching and Learning in Multidisciplinary Contexts

This research study explored threshold concepts in the Scholarship of Teaching and Learning (SoTL) through the lived experience of institution-level/Faculty-level educational leaders in a Canadian research-intensive university (RIU) context as they engage in the University of British Columbia's Faculty Scholarship of Teaching and Learning Leadership Program (UBC SoTL Leadership Program). While research in teaching and learning is not new in higher education, SoTL is a relatively recent international movement, coming into maturity in the 21st century, which contributes to the quality of educational practices in multidisciplinary settings, as well as a growing body of higher education literature (Hubball, Pearson, & Clarke, 2013). With a focus on student learning in diverse higher education contexts, SoTL encompasses a broad set of strategies that engage faculty members in examining curricular and pedagogical practices in a methodical and rigorous way in order to improve their programs; criteria shared with quality scholarship (Glassick, Huber, & Maeroff, 1997; Hutchings, Huber, & Ciccone, 2011). For example, in the current context of increasing scrutiny on learning-centered curricular practices in institutions of higher education, SoTL offers rigorous research and evidence-based practices to inform on-going curriculum renewal and evaluation within and across diverse disciplinary contexts (Kanuka, 2011; Poole, Taylor, & Thompson, 2007; Probert, 2014). Building SoTL capacity in educational leaders supports strategic institutional initiatives at Canadian research-intensive universities (RIUs).

It is important to note that the literature differentiates between scholarly approaches to teaching and learning and SoTL. Scholarly approaches to teaching encourage all instructors to

reflect on their pedagogical practice, identify questions and challenges, engage in classroom-centered inquiries, and seek out resources to inform and enhance their practice (Bunnell & Bernstein, 2012). SoTL integrates research, teaching, and learning within peer reviewed higher education contexts, taking individual inquiry into literature informed, rigorous scholarship (Glassick et al., 1997; Hutchings et al., 2011). Individual research in SoTL typically features inquiry into responsive and integrated curricula, enhances student learning, and assesses the effectiveness of these practices within institutional contexts. Within the broad field of SoTL, in RIUs, there are emerging fields of inquiry focusing on the scholarship of curriculum practice and scholarship of educational leadership. These forms of scholarship, for example, serve the strategic needs of institutions through capacity building for educational leaders in order to drive research-informed, evidence based curricular and pedagogical practices with attention to educational innovation, research design, and dissemination (Hubball, 2014). Recently, various Canadian RIUs are seeking strategic alignment between institutional initiatives pertaining to enhancing the quality of educational experience (i.e., university visioning documents and/or promotion, tenure, and merit criteria) and broader national initiatives of educational leadership (i.e., SoLE[1]). As the institutional commitment to student learning comes under scrutiny, through external accreditations and global rankings, these RIUs recognize a need for visioning that demonstrates the increased importance of strategically supported educational leadership and scholarship pertaining to that leadership.

Although SoTL is increasing its reach and influence in higher education, recent concerns have highlighted a lack of institutional-level SoTL capacity and expertise amongst educational

[1] The Canadian 3M Teaching Fellows have developed an initiative, the Scholarship of Leadership in Education (SoLE).

leaders, a lack of reward and recognition of institutional-level SoTL leadership, and under theorization of SoTL as a field (Gurung & Schwartz, 2010). Weimer (2008) noted that the majority of pedagogical research in higher education is pragmatic in nature; therefore this research informs practice but does not develop the field of SoTL. The paucity of theorization in SoTL is coupled with a lack of preparation for high stakes program and curriculum decision-making in higher education (Richlin & Cox, 2004). With little scholarly research literature investigating these issues and their impact on faculty development educational leadership programs in Canada, this study attempted to address this gap by exploring and analyzing the nature and substance of threshold concepts in SoTL for educational leaders in a Canadian research-intensive university context. Given the importance, and challenges, of the research-teaching nexus in higher education, this research is also anticipated to inform educational leadership programs and SoTL Leadership initiatives in RIU settings.

1.2 Rationale

SoTL plays a key role in instructional support, providing a literature informed, peer reviewed and evidence-based justification for pedagogical, program, and policy changes. As a practical and complementary undergirding for research in learning, SoTL offers the methodological flexibility applicable to the diverse educational contexts across research-intensive universities. Utilizing evidence based approaches to practice and rigorous research design can provide strong justification for program reforms or adoption of specific pedagogical practices. However, many institutions lack internal strategic SoTL expertise and available time to effectively develop and evaluate curriculum and pedagogical practices (Hubball, Lamberson, & Kindler, 2012).

Senior administrators and faculty development professionals have struggled with incentives to encourage and prepare academic staff to do scholarly work in teaching and learning (Richlin & Cox, 2004). There are a number of barriers to capacity building in SoTL including tenure and promotion policies and practices that incentivize disciplinary research as opposed to research in teaching and learning (Boyer, 1990; Webb, Wong, & Hubball, 2013); lack of accountability for program review to be supported by evidence based practice, the challenge of the meaning of SoTL and the discourse of the scholarship of teaching and learning (McKinney, 2002); allocation of time where research, teaching, and learning are seen as complementary rather than competing initiatives (Dobbins, 2008); movement outside of disciplinary cultures (Bunnell & Bernstein, 2012); and the problematic relationship between SoTL and educational research (Kanuka, 2011; Svinicki, 2012). As a strategic institutional-level initiative, and supported by promotion and tenure criteria for both research and teaching stream faculty members, the UBC SoTL Leadership Program is taught by recognized institutional leaders with a track-record of active SoTL research and publication. However, very little is known about threshold concepts in SoTL for educational leaders. This study aimed to explore the nature and substance of the threshold concepts for educational leaders in a Canadian research-intensive university context.

1.2.1 Statement of Purpose

An understanding of threshold concepts (Meyer & Land, 2003, 2005, 2006) in SoTL for educational leaders will help to facilitate a requisite cultural shift for enhanced educational leadership practices within departments and institutions. As a developing field, threshold concepts have generated a great deal of interest as evidenced by the wealth of literature that

continues to develop in this area. The notion of threshold concepts has attracted particular interest around the world (Barradell, 2013; Kiley, 2009; Kiley & Wisker, 2009; Walker, 2013), resonating with a range of disciplines in higher education. As such, threshold concepts have arisen as part of a drive to improve the quality of teaching and learning environments within higher education (Kandlbinder & Peseta, 2009; McLean, 2009; Meyer, 2012; Moore, 2012), but have yet to be explored within SoTL as a field of inquiry in and of itself.

Threshold concepts can work as a lens with which to investigate SoTL and as a frame to consider curriculum for SoTL-based educational leadership programs. The lack of literature shows that we know very little about how threshold concepts could help educational leaders to engage in SoTL. A review of faculty development programs, at partner institutions around the world, shows few educational leadership programs with an emphasis on SoTL or SoTL Leadership. Similarly, literature exploring the impact of threshold concepts has revealed that while their influence has been clearly demonstrated in undergraduate and graduate courses, their effect on faculty development programs for educational leaders has received limited attention. The paucity of studies and gaps in the literature of this area warrant further research, in light of the potential institutional benefits afforded by the adoption of SoTL frameworks for pedagogical and curricular investigations.

1.3 Theoretical Underpinnings

Distinguished from key curricular concepts, threshold concepts are theoretical constructs built around five established criteria. Threshold concepts are transformative, troublesome, bounded, integrated, and irreversible (Meyer & Land, 2003). Recently, three additional criteria have been suggested; discursive, reconstitutive, and liminal (Flanagan, 2013; Flanagan & Smith,

2008; Land, Meyer & Baillie, 2010; Meyer & Land, 2005). While the five foundational criteria will be introduced here, a more fulsome discussion of the criteria is found in Chapter Three.

The transformative nature of threshold concepts involves an ontological shift as well as a cognitive one (Cousin, 2006; Irvine & Carmichael, 2009; Meyer & Land, 2005; Walker, 2013); often challenging a learner's existing knowledge. In fact, the emotional response to troublesome knowledge could provide possible evidence of threshold concepts in the vicinity (Lucas & Mladenovic, 2007). The criteria of integrated and irreversible describe the way in which threshold concept mastery provides a transformation that cannot be undone as it is integrated into the ontological and cognitive change. Finally, a threshold concept is likely to be bounded in that the conceptual space will be a terminal frontier for new conceptual areas (Cousin, 2006).

Threshold concepts act as intellectual spaces to be negotiated on the path to conceptual mastery; they are central to ways of thinking and practicing. During the process of mastery, a learner occupies an inherently epistemologically unstable state as they begin crossing a conceptual threshold. Learners that do not achieve conceptual mastery exhibit a number of challenges, the most serious of which is that learners may become frustrated, lose confidence, and quit. Self-efficacy, optimism, hope, and resilience could provide a positive, personal foundation for the negotiation of threshold concepts (Land, 2012). These concepts also act as gatekeepers to professional practice, using the syntax and semantics of discourse are indicators of the threshold transitions. Carmichael (2010) suggested that "[t]hreshold concepts here become not only 'in the discipline' but play a role 'in the disciplining' of learners and in characterising the nature of the academic discipline" (p. 63) and help to transform learners' expectations of how future learning in the discipline might take place. Threshold concepts were employed as the theoretical framework in this study.

1.4 Research Questions

This inquiry was guided by two research questions:

For institution-level/Faculty-level educational leaders at a Canadian research intensive university,

1. What is the nature and substance of threshold concepts in SoTL?
2. What enhances or constrains their ability to navigate threshold concepts in SoTL?

1.5 Overview of Methodology

The purpose of this study was to explore the nature and substance of threshold concepts in the SoTL through the lived experience of educational leaders at a Canadian RIU. Underpinned by Meyer and Land's (2005) theoretical framework and framed by two research questions, this study seeks to investigate threshold concepts in SoTL in order to inform practice and provide a framework for future research. The knowledge gained is anticipated to: 1) inform current planning, curriculum, and pedagogy in the UBC SoTL Leadership Program and 2) provide insights into the challenges, academic and epistemological, faced by educational leaders in the UBC SoTL Leadership Program. Generally, this study addresses SoTL-based educational leadership programs that have a contextualized, literature informed, evidence based, and peer reviewed approach to scholarship in higher education.

An interpretive, empirical study using phenomenological inquiry (Groenewald, 2004; van Manen, 1997) was designed and conducted to address the purpose and to answer the research questions. Phenomenological inquiries are rooted in describing what participants have in common (Creswell, 2013), and this study generates its knowledge claims from the experience of

the participants in the 2013-2014 cohort of the UBC SoTL Leadership Program as well as a purposeful sample of past graduates of the UBC SoTL Leadership Program (Moustakas, 1994). The study took place between September 1, 2013 and May 31, 2014. Thirteen members of the 2013-2014 cohort and 32 past graduates agreed to take part in the study, representing educational leaders from ten of 12 faculties at UBC[2]. Data collection and analysis were iterative, and influenced by interpretive phenomenology (van Manen, 1997). The methods of data collection included a questionnaire sent to past graduates, participant observation of cohort meetings, semi-structured interviews with both 2013-2014 cohort members and past graduates, and document analysis of UBC SoTL Leadership Program portfolios created by the 2013-2014 cohort members. Throughout the study, a detailed researcher's journal served as a place to reflect on the developing findings and to bracket the researcher's experience. Thematic analysis was used to explore the complex experience, multiple perspectives, and diverse opinions of educational leaders and describe the core facets of threshold concepts in SoTL. Finally, a phenomenological interpretation of the essence of threshold concepts in SoTL for educational leaders was developed (Creswell, 2013).

1.6 Significance of the Study

This research study elucidates the nature and substance of threshold concepts on SoTL in a unique faculty development program for educational leaders at a research-intensive university. In doing so, it also addresses the gap in the literature on professional development for

[2] For the purposes of this study, "faculty members" or "faculty" are considered to be all the contributors to current UBC programs. The word "Faculty" is used to signify their home Faculty (i.e. Faculty of Education). These definitions have been included in the Glossary.

educational leaders. Although few studies have looked at threshold concepts in SoTL directly, previous studies in faculty development have revealed the positive impact of threshold concepts (Bunnell & Bernstein, 2012; Kandlbinder & Peseta, 2009). The intention of the research is to explore the threshold concepts in SoTL utilizing data generated from the perspectives of educational leaders about their experience of engaging in SoTL. This work is an important contribution to both the development of the field of threshold concepts and the approaches for educational leadership programs in research-intensive contexts.

1.7 Researcher Background and Research Assumptions

As of August 2014, I had been teaching at UBC for six years, first as an Adjunct Teaching Professor in the Faculty of Education and then as a member of the UBC SoTL Leadership Program instructional team. My academic background, completed at UBC and Simon Fraser University, is in the Humanities and Secondary Education, including Bachelors of Arts (B.A.) and Education (B.Ed.) and a Master of Arts (M.A.) in Liberal Studies. Following nearly ten years as a classroom teacher in the public school system, my return to UBC, as a graduate student and a teacher educator, was an opportunity to engage with teaching and learning in higher education.

I consider myself to be an educator, but teaching at a research-intensive university left me at a loss (e.g., how do I teach Social Studies to the Teacher Candidates, some who were older and more worldly than I was, without talking down to them?). Fortuitously, my arrival as an adjunct was coupled with involvement in a Teacher Education cohort of the UBC SoTL Leadership Program. This proved to be a transformative experience for me, as well as a number of my cohort members. Not only did the program prod me to integrate familiar practice with

unfamiliar adult learning theory, but also it gave me a language to describe what I was seeing, or wanted to see and do in my classroom. In April of 2011, I was awarded the Faculty of Education Sessional and Lecturer Killam Teaching Award, a prestigious honour, suggesting that I had been successful to some degree in this endeavor. I have published my work, presented at local, national, and international conferences, and received funding to support my graduate studies.

As my career has continued to evolve, I feel tremendous gratitude to be able to do the work that I do. The UBC SoTL Leadership Program has helped me to grow as an educator and equipped me with the skills and abilities to be a scholar in the field as well. This program is unique in that it is a learning-centered leadership program for educational leaders with a focus on collaborative multi- and interdisciplinary practice. The nature of the program creates an environment in which faculty engage in SoTL through scholarly study of their educative practices and ongoing critical reflection. The learning-centered model has the potential to meet the diverse needs and circumstances of those in the UBC SoTL Leadership Program, as it serves the dual purpose of modeling the process as well as personalizing the educational experiences.

Since I joined the Faculty of Education as a graduate student in 2011, I have focused my interest in SoTL and now, among other positions, have led UBC SoTL Leadership Program cohorts for UBC faculty, visiting professors from Beijing, as well as teacher educators. Through my experience as a novice SoTL scholar and a member of the instructional team, I felt confident that there were conceptual barriers to learning SoTL although I did enter the research study with skepticism that threshold concepts exist in SoTL.

While I feel that I am well placed to conduct research into the UBC SoTL Leadership Program, I do not labour under the delusion that this program will or should be prescribed to other institutions; there are so many mitigating factors. What I would like to generate is an

understanding of the larger issues at play as educational leaders engage in SoTL, and if this study is to make recommendations, they have to be made from rigorous, empirical scholarship. As I have conducted this research study, I have been particularly cognizant and reflexive of how my teaching, past learning experiences, and strongly held opinions could impact the project. While I have attempted to put aside, as much as possible, my theoretical ideas and place the focus on the participants' experience, it is important to acknowledge that I am a product of the program that I am studying. The skills and abilities that I have honed were originally developed as a cohort member myself.

1.8 Organization of the Dissertation

This dissertation is divided into six chapters. Chapter One provided an overview of the study, its purpose, research questions, and significance, as well as a description of the site of the study, the UBC SoTL Leadership Program. The study methodology was briefly outlined. As well, my background as the researcher was discussed in the context of my past experience. Chapter Two begins the literature review through an exploration of the background of SoTL as a field with a specific focus on the faculty development programs that support capacity building in SoTL leadership. Chapter Two also serves to situate the UBC SoTL Leadership Program within UBC's institutional culture. Chapter Three examines the background and theoretical underpinnings of threshold concepts (Meyer & Land, 2003). Chapter Three finishes by clarifying the connections between SoTL and threshold concepts, emphasizing the suitability of a thresholds framework when researching SoTL. The methodology and methods described in Chapter Four further clarify the intentions of the study. Designed as a phenomenological study, Chapter Four begins with an explanation of the choice of methodology in order to explore the

nature and substance of threshold concepts in SoTL through the lived experience of educational leaders. The chapter continues with a description of the study, including the conceptual structure and methods of data collection, management, and analysis. The chapter concludes with comments on issues of ethics, credibility, and the limitations of the study. Chapter Five presents the results of the study and answers the research questions. The chapter identifies the generated threshold concepts and discusses what enhances or constrains the ability of educational leaders to navigate threshold concepts. The potential threshold concepts, from all of the data sources, are discussed according to the characteristics for identifying threshold concepts. Chapter Six completes the dissertation by revisiting the findings and synthesis to conclude what knowledge claims have been made and what theoretical propositions have been generated. The primary focus of this chapter is a discussion of the claims that have emerged, the implications for educational leadership programs in RIU contexts, as well as other SoTL-based faculty development programs, future research, and possible conclusions that can be drawn.

Chapter 2: The Scholarship of Teaching and Learning

This chapter provides an overview of the scholarship of teaching and learning and examines its current location primarily within a North American context. The chapter begins with an historical overview of the scholarship of teaching and learning in order to situate the field within the context of research-intensive universities. Knowledge of the current state of the field is essential to understand the place of SoTL in the research-intensive university. The chapter concludes with a discussion of the varied ways SoTL is part of faculty development and institutional initiatives.

2.1 An Introduction to the Scholarship of Teaching and Learning

Given the importance and challenges of the teaching-research nexus, this chapter will focus on the place of the scholarship of teaching and learning in the research-intensive university. The landscape of education at research-intensive universities is complex and constantly changing. In Canadian RIUs, highly specialized disciplinary knowledge butts up against institutional and public accountability, cutting edge technology is used to enhance flexible learning, and increasingly global student populations demand exceptional education experiences. Strategic educational initiatives that use a framework of SoTL offer a way for Canadian RIUs to encourage faculty to engage with research, teaching, and innovation through proactive faculty development and supportive institutional governance.

2.1.1 Into Fertile Ground: The Foundation for SoTL

The scholarship of teaching arose out of the fertile ground of previous work in the educative practices of the disciplines. During the first decades of the 20th century, a small number of disciplinary societies sponsored specialized journals exploring educational issues in their field (i.e. the American Society for Engineering Education, begun in 1910, and the Journal of Chemical Education, begun in 1924, published by the Division of Chemical Education of the American Chemical Society) (Huber & Hutchings, 2005). Later, the 1960s saw an explosive growth in the discussion and debate in the wider higher education community coinciding with the massification of higher education in North America (Glassick et al., 1997).

However, it is hard to underestimate the influence of the Carnegie Foundation in furthering the study of teaching and learning in higher education. Founded in 1905, it has a long history of involvement in educational policy and research (Carnegie Foundation for the Advancement of Teaching); however it was Ernest Boyer's appointment as president that began the separation of the Carnegie Corporation and the Carnegie Foundation. The newly separate Foundation's interest in higher education was broadened to include all levels of the educational experience, not just politics and policies.

In his influential work, *Scholarship reconsidered: Priorities of the professoriate* (1990), Ernest Boyer suggested that the 1990s would become the decade with a focus on undergraduate education. At the center of this debate, he predicted, would be the issue of faculty time, as stakeholders debate the primacy of the professoriate's activities. For what activity do institutions of higher education engage professors? Is it possible to have fruitful discussions about the importance of teaching in higher education if professors are not recognized or compensated for the improvements in this area? While this tension still exists, a number of institutions are

recognizing this tension and addressing teaching and learning in higher education as an area worthy of scholarship.

2.1.2 Boyer and the Scholarship of Teaching

According to Boyer (1990), institutions of higher education had, at the time, adopted too narrow a view of scholarship, "one that limits it to a hierarchy of functions" (p. 15), with basic research as the first and foremost scholarly activity. Teaching, research, and service are actually intertwined into a comprehensive, dynamic relationship, continuously influencing and overlapping with each other. Good teaching is a scholarly, dynamic endeavor undertaken by faculty as learners (Boyer, 1990), highlighting four keys to scholarship – discovery (research), integration (moving outside the disciplinary silos), application (bringing knowledge to bear on consequential problems), and teaching (initiating students into the best values of the academy). As well, there is also a key place for the learner in Boyer's definition of good teaching; classroom discussion, comments, and questions push professors in new and generative directions. The application of knowledge should be understood as an act of scholarship on par with the discovery of knowledge through research, the integration of knowledge, and the sharing of knowledge through teaching (Boyer, 1990). Therefore, Boyer concludes that what is needed in higher education is a more inclusive view of what it means to be a scholar – "a recognition that knowledge is acquired through research, through synthesis, through practice, and through teaching" (Boyer, 1990, p. 24). At the crux of *Scholarship Reconsidered* is the assertion that the academy needs to avoid a narrow definition of scholarship and to recognize and reward all four categories of scholarship.

2.1.3 The Waves of SoTL

The scholarship of teaching and learning can be divided into three phases (Gurung & Schwartz, 2010) although the borders of these phases could be debated. The first phase was concerned primarily with scholarship in teaching, a noted difference from the second phase which brought together teaching and learning as an interest to the field. While the early phases were concerned with definition and initial theorization, it is the opening up of the third phase that has included and invited a broad array of practitioners into the 'big tent' (Huber & Hutchings, 2005). This third phase has been particularly generative, as it has featured the maturation of the field with rich dialogue and debate through international journals and conferences and broader national initiatives. In the near future, one might anticipate an international handbook for SoTL.

2.1.3.1 Phase One (1990-1998): Priorities and Assessment

The first eight years of SoTL (1990-1998) were taken up with explaining definitions (Huber, 2010). Between Boyer's (1990) definition of a scholarship of teaching to Shulman's (1999) introduction of the Carnegie Academy for the Scholarship of Teaching and Learning (CASTL), early SoTL scholars were concerned with conceptualizing the scholarship of teaching as of value to institutions of higher education.

Utilizing its position as an external driver of change, the Carnegie Foundation continued to advocate for recognition of a scholarship of teaching. In *Scholarship assessed: A special report on faculty evaluation* (later published widely as Scholarship assessed: Evaluation of the professoriate), Glassick et al. (1997) consider the standards that might be used in assessing scholarship in all its forms. They suggest that in the narrow definition of scholarship focused on discovery/research the sharing of knowledge through teaching and the application of knowledge

through service have suffered. The reward structure in higher education continues to be a challenge and there is little consensus on how to move forward. Glassick et al. (1997) note that scholars seeking promotion and tenure present a long list of publications and numerically validated student evaluations of teaching with scant acknowledgement of academic values like integration, application, and teaching. Based on a broad conceptualization of scholarship across many disciplines, the authors define scholarly work based on six qualitative standards: clear goals, adequate preparation, appropriate methods, significant results, effective preparation, and reflective critique. They also suggest that documenting this scholarship requires "rich and varied materials that the scholar and others assemble over time to make a case" (Glassick et al., p. 37). The qualities of a scholar extend beyond, but are connected to, a body of knowledge and include personal characteristics such as integrity, perseverance, reason, courage, humility, and honesty. This key publication articulates a possible path for institutions to explore in order to recognize scholarship in teaching as a rigorous academic pursuit.

Following Boyer's death in 1997, Lee Shulman became the president of the Carnegie Foundation. Shulman's vision was to create a centre for the advanced study of teaching for teachers of all levels. This marks a major turning point for the Scholarship of Teaching as Shulman worked with the American Association for Higher Education on the concept of teaching as community property and as a scholarly practice in a community of peers. This led to the launch of CASTL in 1998 as a major initiative to bring about change in pedagogical research. The intention of CASTL was to make teaching public to a scholarly and general community and to subject it to critical peer review. This move reinforces the public, pedagogical role of the Scholarship of Teaching.

2.1.3.2 Phase Two (1998-2004): Widening the Field

A key characteristic of the second wave of SoTL is the ongoing theoretical development. By 1999, Hutchings and Shulman characterized SoTL as a catalyst for change (Hutchings & Shulman, 1999). They also extended the scholarship of teaching to include learning as foundational to the definition. Marking the division between Boyer's SoT and SoTL, Hutchings and Shulman (1999) suggest that all faculties, although not institutions, have an obligation of excellence in teaching. However, SoTL must take up four additional challenges: beginning the conversation about credible methods of inquiry, keeping the Scholarship of Teaching open to a wide set of inquires, making a commitment to publically share research (Shulman, 1993), and creating sustainable change.

The second phase of SoTL development also highlights the methodological flexibility of faculty members engaging in inter- and intra- disciplinary research. Recognizing that each discipline has its "own intellectual history, agreements, and disputes about subject matter and methods," Huber and Morreale (2002) acknowledge that SoTL scholars "must address field-specific issues if they are going to be heard in their own disciplines, and they must speak in a language that their colleagues understand" (p. 2). As interdisciplinary conversations and collaborations become more frequent and substantial, SoTL widens the "trading zone" (Gallison as cited in Huber & Morreale, 2002, p. 2), where meanings and methods may vary, but a contribution is made to the intellectual discourse and debate on teaching and learning in higher education. The second phase of SoTL acknowledges disciplinary difference, but heeds Boyer's (1990) scholarship of integration. Shulman (2000) concludes *Opening Lines* with a chapter entitled, "Inventing the Future." He advocates for the role of professor to include teacher, mentor, steward, and public servant and calls for institutional support with formal structures that

merge institutional commitments to both teaching and inquiry. Ultimately, SoTL cannot be sustained in isolation and professors must create intellectual communities that transcend institutional boundaries (Shulman, 2000).

2.1.3.3 Phase Three (2004 to present): SoTL Moves Forward

The conclusion of CASTL in 2010 (Huber, 2010) would have been a logical place to launch the third wave of SoTL (Gurung & Schwartz, 2010) with a smooth transition buoyed by optimism for SoTL. However, I believe that the concept of the SoTL Commons (Huber & Hutchings, 2005; 2006) is the defining feature of the transition to the third phase of the development of SoTL. The establishment of the International Society for the Scholarship of Teaching and Learning (ISSoTL) and its international conference, in 2004 demonstrates the interest and inclusion of a larger national and international community focused on dialogue and debate in institution-level SoTL (Hutchings et al., 2011). The culmination of the transition to the third phase is the publication of the International Journal for the Scholarship of Teaching and Learning (IJSoTL) in 2007. Included in the first issue are invited articles by Pat Hutchings and Carolin Kreber (2007), founding members of ISSoTL. As representatives of the third phase in SoTL, both authors bring attention to the integration of research, practice, and teaching of SoTL scholars within and across many disciplines. While the debate over definition continues (Parker, 2008; Potter & Kustra, 2011), the field of SoTL is focused on practical and theoretical research (Felten, 2013). As the field has continued to coalesce, two tensions are frequently being discussed in the literature: the place of educational theory in SoTL research (Kanuka, 2011; Parker, 2008; Svinicki, 2012) and the methodologies and methods of SoTL research (Danielson, 2012; Hubball & Clarke, 2010; Huber, 2010).

While the third wave of SoTL is concerned with pedagogical and methodological insights, it has also turned its attention to program level assessment and institutional change (Bryk, Gomez, & Grunow, 2010; Hubball & Gold, 2007; Hubball, Pearson, & Clarke, 2013; McKinney, 2012; Trigwell, 2013). Looking forward, Canadian scholars have begun to turn their attentions to the value of SoTL at an institutional level (Hubball et al., 2012; Hubball, Clarke, & Pratt, 2013). Bringing the scholarship of curriculum practice and educational leadership under the umbrella of SoTL moves the field beyond the individual classroom to institution-level educational practice and examination. This more expansive view of SoTL, including rigorous and robust evaluation of undergraduate and graduate programs through the scholarship of curriculum practice, has strong strategic value to RIUs in which high-stakes curriculum decisions are made on a regular basis.

2.2 Critiques of SoTL

The pedagogical and methodological focus of the third wave of SoTL is also the starting point of many critiques of the field. Further, critiques of SoTL have tended to focus on the localized, classroom based research, the focus on the North American context, and the lack of focus on institutional context. This is supported by Stierer and Antoniou (2004), who note that

> much, if not most, pedagogic research in UK higher education is carried out by practitioners with a disciplinary and research background other than education. These practitioner-researchers are mainly concerned about issues within their own disciplinary and professional contexts, rather than with the nuances of educational research methodology (p. 283).

Faculty members in most disciplines have no formal training in teaching itself (Huber & Hutchings, 2005). Therefore, through mobilization of the teaching commons, campuses need to become or support places where this education about and for SoTL can take place through programs, structures, and rewards. Activating SoTL research teams (Svinicki, 2012) brings together differing academic expertise in the pursuit of credible and significant teaching and learning research. Differences of opinion in assumptions about what constitutes credible evidence and what methods yield scholarly result can make it hard for SoTL to be valued across disciplines. Yet, this borrowing may enrich the lessons learned and make the work more broadly significant (Huber & Hutchings, 2005; McKinney & Jarvis, 2009). However, interdisciplinary structures entail both strengths and weaknesses. Interdisciplinary research is more likely to innovate through cross-pollination, but the majority of institutional reward structures continue to flow through the individual disciplines.

Within the context of higher education generally, Davis and Chandler's (1998) critique of Boyer's (1990) concept of scholarship argues that it ignores the importance of socio-economic context and the organizational structure of the university. In the current marketization of higher education, SoTL scholars must address questions of what is most highly prized and by whom and for what purposes (Davis & Chandler, 1998). This tension between institutional structures and academic values is not new. In fact, the changing global context of the RIU has the potential to exacerbate the distance between disciplinary and institutional values. As RIUs develop strategic initiatives to emphasize exceptional teaching and learning in higher education, they require rigorous, empirical research to support these institutional changes.

Stepping back to an international context, the theorization of SoTL has tended to take place within the North American educational context. Parker (2008) highlights the North

American / European divide, citing the different models of student learning, research bases, literature, employment requirements, and paradigms of the UK. Seeing these differences as insurmountable, Parker (2008) suggests that "rather than fighting to be recognized as a separate discipline with an established research base and theoretical frame, SoTL should concentrate on being an effective community of practice, generating and disseminating the emergent disciplinary knowledge that is made in teaching" (p. 171). However, I believe that SoTL can be more than just a community of practice. Through literature informed, rigorous methodological inquiry, and peer disseminated findings, SoTL provides a practical and complementary undergirding for research into teaching and learning regardless of the theoretical positions from which inquirers come (Gilpin, 2011). SoTL research is a distinctive form of research, shaped by multi-disciplinary contexts and focused on practice-driven inquiries with an explicit transformational agenda (Gilpin & Liston, 2009; Hubball & Clarke, 2010). In practice, SoTL affords an evidence-based vision of change across a discipline or institution. Beyond developing a set of best practices, SoTL encourages research into curricular and pedagogical impacts and innovation of practice. This study is one attempt to extend and enrich this discussion.

2.3 SoTL in the Research-Intensive University

When studying for a career in academia, most graduate students are trained in the methodologies and discourses of their discipline. There is an inherent mismatch between the responsibilities that most faculty members undertake on a daily basis and the training that they received as they earned their highest degree (Shulman, 2000). While the field of SoTL has coalesced around a set of key principles, the incorporation of SoTL in research-intensive universities has been varied. For the remainder of this chapter, I will discuss SoTL in RIUs; 1)

broad national initiatives 2) institutional supports including centres for teaching and learning and, 3) strategic, institutionally supported SoTL Leadership.

2.3.1 Broad National Initiatives

The opportunity to engage in further study or professional development related to teaching and learning is desired by faculty members, and studies have shown that it is having an effect (Dobbins, 2008; Donnelly, 2006). There are noted changes in pedagogical beliefs and assumptions as faculty members engage in communities of practice to discuss curricular and pedagogical issues. For example, Dobbins (2008) notes that the National Teaching Fellowship Scheme, initiated in 2000, has begun to incentivize faculty members in UK universities. This was followed, in 2005, with the awarding of Centre for Excellence in Teaching and Learning (CETL) status, and capital grant monies, to particular sites. By 2008, 74 universities had garnered CETL status. The establishment of The Higher Education Academy in the UK, the 3M Teaching Fellowships in Canada, and the Carrick Institute for Learning and Teaching in Australia, are cited as national efforts to significantly change the context for teaching and learning in higher education (Hubball & Gold, 2007; Young, 2006).

One example of a broad national initiative to encourage SoTL in early career faculty is mandated faculty development programs. For example, new appointees at many RIUs in the UK are required to complete a post-graduate certificate in teaching and learning in higher education that has been certified by the Higher Education Academy. At an institutional level, these mandatory post graduate certifications demonstrate positive steps toward an increase in scholarly teaching and capacity building in higher education. The integration of research within teaching and learning enhances and develops practice for new faculty.

Mandating teaching programs increases the teaching skills of faculty members and graduate students; however it does not engender a cultural shift in workload that validates time spent researching teaching and learning. The lack of validation was echoed in Fink's (2013) survey of faculty development programs. She concludes, "Program leaders need to find ways to lay the foundation for having a wider impact on faculty teaching practices. One way of doing this is by establishing teaching certificate programs" (p. 8). While mandated national programs and institutional initiatives that develop pedagogical competency in faculty are essential to the integration of SoTL, what Fink does not discuss is the need for institutional and governance structures which support and reward educational leadership. Ultimately, these programs promote scholarly teaching or individual SoTL inquiries, but there is a gap for those who are past the probationary period, are already scholarly instructors, and who are interested in or have already taken on leadership positions within the curriculum and pedagogy of their disciplines.

Table 2.1 allows us to clearly see the similarity in programs and overlapping learning outcomes across a variety of institutions[3], despite their physical distance. Through this analysis, I discern a focus on instructional skills and scholarly teaching as part of a larger process of induction of new faculty in the teaching and learning culture of the institution. While the focus on best practice teaching techniques (planning a course outline, assessment and evaluation techniques, and investigating an issue linked to personal practice) and clearly articulated programs' objectives will provide educational benefit to student, there is little strategic institution-level SoTL capacity building inherent in these programs.

---

[3] The institutions in this comparison were selected, as they are research-intensive universities, doctoral granting institutions, and considered to have aligned strategic goals as they are Universitas 21 (http://www.universitas21.com/) partners with UBC.

Table 2.1
Mandated Institutional Programs at Universitas 21 Institutions

Country	Institution	Program title	Target participants	Program requirements	Program learning outcomes
Australia	The University of Melbourne	Graduate Certificate in University Teaching	Current employment at an Australian university with teaching responsibilities (full-time staff, part-time or sessional)	A part-time program (completed over one or two years) – principles of effective university teaching, designing a curriculum, teaching in practice, and an individual project. Each courses requires 12-16 contact hours.	Designed for university staff seeking to develop their expertise, scholarship, and leadership skills in university teaching. Research-based, theoretical seminars, with practical exercises involving peer review of teaching and negotiated projects.
New Zealand	University of Auckland	Postgraduate Certificate in Academic Practice	Currently employed in the tertiary education sector and have significant teaching responsibilities or roles in supporting students	Part time program over a two-year period. 60 credits for three courses: learning teaching and assessment, academic citizenship and professionalism, and an elective	An accredited tertiary teaching qualification designed to provide a theoretical and practice foundation in higher education teaching, research productivity, and academic citizenship for university lecturers.
Sweden	Lund University	"teacher training"	New appointees	A 5 week course in teaching and learning in higher education within two years of appointment	Before appointment, teaching staff should have the equivalent of 5 weeks of training in teaching and learning. All teaching staff receives an additional five weeks of training.
England	University of Nottingham	Post Graduate Certificate in Higher Education	New lecturers and university teachers	The PGCHE course is a 60-credit qualification and is made up of 15-credit modules. A minimum of 30 credits is required.	The PGCHE provides a practical and theoretical grounding in learning and teaching in Higher Education and emphasizes the links between conceptual frameworks and professional practice. The PGCHE encourages participants to develop a scholarly, reflective enquiry base to inform their teaching.
Ireland	University College Dublin	Professional Certificate or Diploma in University Teaching and Learning	Academics at different stages of their careers	A one or two year program – PCUTL (Year one) - Becoming a better university teacher & assessing for teaching and learning PDUTL (Year two) - Active Learning with Technology & Designing Modules for Engaging & Effective Learning	Program learning outcomes include: expanding a repertoire of strategies, personalizing your learning to make it relevant to your teaching contexts, developing a student centered, research informed approach, and creating an evidence-based portfolio of reflective professional development.

University College Dublin is one of the few who explicitly state that "more experienced academics will be offered opportunities to revitalize their teaching and to try out new approaches to curriculum design and assessment" (http://www.ucd.ie/teaching/academicdevelopment/) as their program is open to faculty members at any point in their career. However, revitalizing teaching is very different than developing capacity for institution-level educational leadership.

An informal examination of faculty development programs available at Canadian universities emphasizes a different target audience. These optional programs tend to be directed primarily at graduate students in order to assist them in their roles as Teaching Assistants or provide them with the teaching skills to compete for future academic positions (Simmons, 2011). Almost all of these initiatives are offered as independent workshops with a few culminating in a certificate. It is interesting to note that there are few structured supports in place for Canadian faculty members who want to engage in SoTL research.

Nationally supported teaching fellowships provide the funds that ensure academic staff have increased flexibility to pursue research in these areas as these initiatives provide the recognition and reward that is missing from ad hoc scholarly teaching and SoTL. However, it is important to connect local, institutional, and national initiatives.

2.3.2 Institutional Supports for Scholarly Teaching and Individual SoTL

Consistent with the ethos of research intensive universities, where all faculty are expected to draw upon best practices and reflective practice, scholarly approaches to teaching and learning include carefully planned and continuously examined curriculum and pedagogy which relate directly to the subject taught or the curriculum under construction (Boyer, 1990). These projects are often undertaken by individuals within local contexts (Haigh, 2012) and support personal

pedagogical or curricular interests.

SoTL practice is shaped by disciplinary and local institutional contexts. Sometimes narrowly defined as classroom or course based action research in higher education, individual SoTL research can be both epistemologically challenging and empowering (Hubball, Clarke, & Poole, 2010). Yet, the pedagogical or curricular transformation of SoTL research has the potential to make "substantive contributions such as educational leadership, program-level reform, [and] curriculum renewal initiatives" (Hubball, Pearson, & Clarke, 2013, p. 50). It is often necessary for individuals conducting SoTL projects to seek out a support network. A SoTL community of practice helps bring SoTL projects to fruition by bringing together old timers and newcomers; it offers modeling of SoTL practice, supports the facilitation of SoTL research, and enables SoTL networking. This community helps to address key methodological, epistemological, and ethical challenges. However, many institutions lack internal SoTL expertise and available time to effectively develop and evaluate curriculum and pedagogical practices (Hubball et al., 2012).

Institutionally, there are many barriers to change (Hubball & Pearson, 2010; Webb et al., 2013) including entrenched systems of credit hours, scheduling, methods of teaching and assessment, departmental or disciplinary silos, administration systems, and reward systems that value research over pedagogical or curricular leadership. The policies and practices that are designed to improve standards and efficiency are often at odds with those designed to improve student learning (Hockings, 2005; Young 2006). As well, these institutional or national initiatives do not resolve the tension between disciplinary and institutional values that were identified in the critiques of SoTL.

The movement to include multidisciplinary and interdisciplinary scholarly research and apply it beyond the local classroom requires a cultural shift for many departments (McKinney & Jarvis, 2009). So far, institutional initiatives have increased the library holdings of teaching and learning journals and journals on the educative practices of disciplines, supported the creation of multi- and interdisciplinary learning communities, and incorporated scholarship informed strategic planning and curriculum reform initiatives. Localized research is being used to justify broad budgetary requests (McKinney & Jarvis, 2009). The influx of resources, such as release time, funding, collaborations, or leadership opportunities, is also critical for the incentivization and ongoing application of research into teaching and learning (McKinney & Jarvis, 2009). While funding may provide opportunities to hire support staff and travel to conferences, there are other factors impacting the focus and attention of academic staff (Dobbins, 2008). An increased emphasis on income generation by faculty members (e.g., corporate donations or projects that connect private sector businesses and university researchers) can create an obstacle to time spent studying teaching and learning.

When scholarship is directed at teaching and learning at a particular institution, its efforts must be supported locally (Shulman, 2000) as the institution is both research site and interested partner in the investigation. Unfortunately, administrators and faculty development professionals have struggled with how to encourage and prepare academic staff to do this type of scholarly work (Richlin & Cox, 2004). Leveraging the support and commitment of senior managers is also critical to removing the cultural and institutional barriers (Hockings, 2005). As a result, educational scholarship projects in the RIU context are typically conducted by a small number of faculty members with experience of SoTL research.

2.3.3 Advocacy for SoTL Within Institutional Centres for Teaching and Learning

Centres for teaching and learning offer in-service workshops for academic staff who want to hone their instructional skills. These programs mark a positive move towards scholarly teaching in higher education with an explicit focus on pedagogical skills as part of a larger process of induction of new faculty into the teaching and learning culture of the institution. Traditional instructional skills programs increase faculty members' ability to deal with the challenge of class size and diversity, student engagement, and evaluation over assessment. Ultimately, these programs promote scholarly teaching, but SoTL provides the next steps including a more rigorous view of what it means to be an educational scholar within one's respective disciplinary field, documenting, carefully assessing, and disseminating teaching and learning activities in peer reviewed contexts.

SoTL advocacy, based in teaching and learning centres, typically provides support for individual inquiries. As discussed in section 2.1.3.3, the current wave of SoTL seeks to engage with pedagogical and methodological insights. Centres for teaching and learning can be instrumental in coordinating and facilitating this work with recognized institutional experts in educational scholarship and research methodology in higher education. These localized SoTL programs generally include access to resources, knowledgeable professionals, and communities of practice, which increase the knowledge of research on teaching and learning in higher education. The programs are structured to support individuals or small groups as they develop inquiry projects and mobilize the teaching commons by connecting individuals, with similar interests, from across the campus. While these teaching and learning projects will provide educational benefit to students, they are often ad hoc with little strategic, institutional capacity building inherent in these programs (Hubball et al., 2012).

As well, while a personal obligation to teaching and to students is identified as the primary motivation for improving teaching and learning culture, this commitment may mean shifting priorities, as SoTL research is not always recognized as equivalent to traditional disciplinary scholarship in Canadian universities and beyond (Poole & Iqbal, 2011). Poole (2010) suggested that the SoTL movement has made a number of important inroads in Canadian universities, but the institutional value of SoTL must be promoted and demonstrated. Further, two recent studies in the United Kingdom (UK) identified major barriers to developing teaching and learning in higher education. The perceived low status of teaching within the academy, lack of reward for exceptional teaching (Young, 2006), and lack of integration of research and teaching (Dobbins, 2008) are seen as hindering new developments to enhance teaching and learning.

2.3.4 Strategic, Institutionally Supported SoTL Leadership

SoTL Leadership builds upon SoTL and the scholarship of educational practice through the integration of educational leadership and scholarship in higher education (Hubball, Clarke, Webb, & Johnson, 2015). Situated within complex institutional and cultural contexts, SoTL Leadership provides a scholarly foundation for systemic approaches to enhance the impact and quality of teaching and learning. A SoTL Leadership program builds capacity through engagement in scholarship at the institutional level. SoTL Leadership strategic capacity building of campus-wide expertise supports the development and evaluation of curricular and pedagogical changes, addresses key issues of strategic alignment, and supports the integration of educational leadership practice and scholarship for educational leaders. Working with nominated institution-level/Faculty-level educational leaders from diverse university contexts on strategic,

institutional-level goals and initiatives strategically enhances teaching and learning, is supported through governance changes, and is funded at the institutional level.

As demonstrated in Figure 2.1, SoTL Leadership is more than scholarly teaching or an independent one-off SoTL project. SoTL Leadership is conducted by a small, specially trained group of educational leaders, hired to strategic positions, working on specifically supported intuitional initiatives. Key institutional support of SoTL Leadership programming seeks to align promotion, tenure, and merit criteria and differentiated workload allocations, for example.

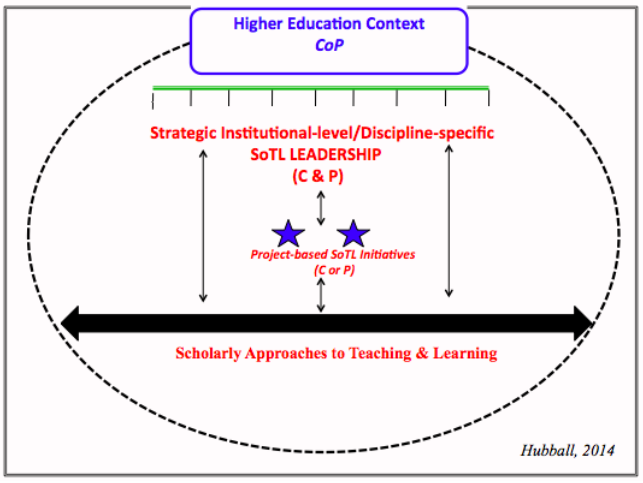


Figure 2.1. Strategic SoTL Leadership with the Higher Education Context (Hubball, 2014).

Very little to zero attention is given to SoTL Leadership in the previously mentioned initiatives or programs that provide the scholarship foundation for educational leaders who have to make high stakes decisions about curriculum and pedagogy within a program, department, or faculty. These educational leaders are recognized for their leadership and disciplinary expertise, yet are missing the theoretical grounding in the scholarship of teaching, learning, and curriculum practice in higher education (Hubball et al., 2012). In the current context of increasing scrutiny of curricular practices and curriculum analytics, SoTL Leadership offers rigorous research on teaching and learning in higher education at an institutional level.

Yet, the barriers to SoTL Leadership are not insurmountable. At the national level, the Canadian Council of 3M Teaching Fellows has proposed the Scholarship of Leadership in Education (SoLE) (3M National Teaching Fellows, 2014). This initiative supports educational leadership at the local and national levels through a grant program, providing funding that connects 3M Fellows and their colleagues to recognize the leadership and innovation of SoTL leaders. Such national or institutional funding initiatives and changes in governance can create fertile ground for strategic institutional initiatives in SoTL for educational leaders (Poole, 2010).

At the institutional-level in a Canadian RIU, for example, the UBC SoTL Leadership Program is a learning-centered program for institution-level/Faculty-level educational leaders. Begun in 1998, this program strategically evolved from an initial focus on the scholarship of teaching and learning for the first decade of the program implementation, to its current focus on SoTL Leadership. This program is implemented annually for strategically selected (by Dean's nomination) educational leaders. Nominated UBC educational leaders receive a specific scholarship to engage in SoTL Leadership initiatives to strategically impact the quality of teaching, learning and/or curriculum practices within Faculty-specific or Institutional-level contexts (Hubball et al., 2015). The nature of the program creates an environment in which educational leaders from diverse disciplinary higher education backgrounds engage in SoTL leadership inquiry through a program of study of their own educational leadership practices, ongoing critical reflection, and scholarship related requirements. The learning-centered model has the potential to meet the diverse needs and circumstances of the UBC SoTL Leadership Program, as it serves the dual purpose of modeling the process as well as personalizing the educational experiences. The program covers a range of educational leadership theories and concepts within SoTL (including program themes such as Institutional SoTL Leadership in

International, National, and Local Contexts and SoTL Inquiry, Research Design, Methodology, Evidence-based Practice & Dissemination), with the expressed aim of helping participants to

> think critically about the SoTL literature and its implications for educational practice in diverse contexts, integrate SoTL research skills in complex educational practice settings, develop a critically reflective teaching/educational practice, design a learning-centered course/curriculum that includes authentic methods of assessment and evaluation of student learning, and demonstrate effective leadership, collaboration and communication skills when initiating, engaging in, and disseminating SoTL research.
>
> (http://international.educ.ubc.ca/SoTL/program-of-study/)

The UBC SoTL Leadership Program is locally situated (the context for this study); however, the blended/on-line program has been adapted to other institutions wanting to transform their institutional initiatives through systematic, critical, and cyclical inquiry (Hubball et al., 2012) and support their educational leaders as they move from personally relevant, SoTL individual-level practice inquiry to SoTL institution-level leadership inquiry in multinational contexts (http://international.educ.ubc.ca/SoTL).

2.4 Summary

This chapter provided historical context for SoTL at institutions of higher education, while raising issues surrounding the place of SoTL in RIUs. Critiques of SoTL have highlighted the classroom-based nature of much of the scholarly teaching and initial SoTL research. This research tends to be focused on one discipline or program at a local level. As a result, there is a

lot of room for continued exploration of programs and institutional initiatives. Traditionally, instructional skills programs have increased faculty members' ability to deal with the challenge of class size and diversity, student engagement, and evaluation instead of assessment, but have had relatively low impact on institutional initiatives. Nationally and institutionally mandated SoTL programs have helped to engage faculty members in the practical and theoretical debates of SoTL while supporting specific projects conducted by a select group of faculty members.

Conducting and disseminating SoTL research operates as a bridge between excellence in teaching and excellent research on teaching. Ongoing reconceptualization of Boyer's (1990) scholarship of teaching towards SoTL serves as a valuable addition to the research-teaching nexus of the work of higher education providing the possibility for encouraging dynamic advancement within institutions. Both the programs and practice of SoTL provide a compatible way for research-intensive universities to support and engage in research, teaching, and innovation. Educational leaders, engaged in pedagogical and/or curricular research require strategic supports that build their capacity for decision making at an institutional level. This study is situated within the context of SoTL Leadership at a research-intensive university and seeks to explore the lived experience of these educational leaders as they engage in SoTL in an attempt to address one of the shortcomings in this literature, namely threshold concepts in SoTL.

Chapter 3: Threshold Concepts

Chapter Three is an overview of threshold concepts, which acts as a theoretical foundation for the study. As a relatively new field, threshold concepts are a dynamic area of inquiry with new research and theory being continuously developed. This chapter begins with an introduction to the history and theory of threshold concepts. Research underpinning threshold concepts was begun in 2001 as inquiry into undergraduate teaching and learning at three universities in the United Kingdom. From that research, threshold concepts (Meyer & Land, 2003; 2005; 2006) are broadly defined as portals to conceptual understanding, "opening up a new and previously inaccessible way of thinking about something" (Meyer & Land, 2003, p. 1). Central to this study are the foundational dimensions of a threshold concept and a discussion of these dimensions in SoTL. The chapter concludes with a discussion of the relevant characteristics of threshold concept that were utilized in this study.

3.1 Introduction to Research in Threshold Concepts

The threshold concepts framework emerged out of a four-year project funded by the Economic and Social Research Council as part of its Teaching and Learning Research Programme. Entitled Enhancing Teaching/Learning Environments in Undergraduate courses (ETL) (www.etl.tla.ed.ac.uk), it was a large-scale collaborative project involving universities across the United Kingdom (Edinburgh, Durham, and Coventry). Designed to support departments involved in reconsidering high quality learning, the ETL sought to develop subject-specific conceptual frameworks to guide and support development of teaching and learning environments in order to form a bridge between the knowledge of academic staff and national

standards describing high quality teaching and learning. Four subject areas (electrical engineering, cell and molecular biology, business economics, and history) were chosen to provide coverage of the academic disciplines and professional areas.

Working collaboratively with departmental instructors, data were collected using questionnaires and interviews with staff and students at the first-year level and final-year level. The findings were returned to the departments and discussions on the implications led to collaborative initiatives with the departments. Underpinning all of this work was an interest in how student learning is influenced by the whole teaching and learning environment, not just teaching techniques and assessment. The aim of the project was to develop more precise ways of thinking about university teaching and learning. This was achieved through the development of four conceptual frameworks directed at the quality of learning achieved in higher education: teaching-learning environment, constructive alignment, ways of thinking and practicing in the subject, and troublesome knowledge and threshold concepts.

As a developing field, threshold concepts have generated a great deal of interest as evidenced by the wealth of literature that continues to develop. Within the context of the ETL project, the notion of threshold concepts, developed by Meyer and Land (2003; 2005; 2006), has attracted particular interest within the United Kingdom and around the world (Barradell, 2013; Kiley, 2009; Kiley & Wisker, 2009; Walker, 2013). The idea has resonated with a range of disciplines in higher education. As such, threshold concepts have arisen as part of a drive to improve the quality of teaching and learning environments within higher education (Kandlbinder & Peseta, 2009; McLean, 2009; Meyer, 2012; Moore, 2012).

Following on the success of the ETL project, the Transforming Perspectives project (http://www.caret.cam.ac.uk/tel/) built upon the idea of threshold concepts with focused attention

on activating expert knowledge in order to develop threshold concepts across eight disciplines (Carmichael, 2010). The project agenda included an interdisciplinary network for "technology-enhanced teaching and learning of 'threshold concepts' in higher education" (Transforming Perspectives project, 2006) in order to provide personalized learning in flexible environments. As threshold concepts are associated with conceptual change models of learning, it was suggested that better understanding of learner support, from an interdisciplinary perspective, would help to widen participation in higher education and align university and work.

3.2 What are Threshold Concepts?

Threshold concepts have been described as "akin to a portal, opening up a new and previously inaccessible way of thinking about something" (Meyer & Land, 2003, p. 1). A concept is considered threshold if it leads to a qualitatively different view of the subject matter for the learner (Meyer & Land, 2003). Mastery of these concepts presents intellectually and personally transformational experiences. Also described as 'stuck places' (Ellsworth, as cited in Meyer & Land, 2005), threshold concepts are portrayed as representing a "transformed way of understanding, or interpreting or viewing something without which the learner cannot progress" (Meyer & Land, 2003, p. 1). For example, once I understand that gender is a social construct, it radically changes my understanding and increases the differentiation between my conceptions of sex and gender.

A common starting point in discussions of threshold concepts is a set of five characteristics identified by Meyer and Land (2003, 2006). Threshold concepts are transformative, irreversible, integrative, often, but not necessarily bounded, and often troublesome (representing some conceptually difficult or foreign knowledge [Perkins, 1999]).

Recently Flanagan and Smith (2008), Meyer and Land (2005), and Land, Meyer, and Baillie (2010) have augmented the list of characteristics to include discursive, reconstitutive, and liminal (Flanagan, 2013). Each of the characteristics will be discussed in more detail below.

3.2.1 Transformative

The transformative nature of threshold concepts involves an ontological shift as well as a cognitive one (Cousin, 2006; Irvine & Carmichael, 2009; Meyer & Land, 2005; Walker, 2013). As such, when a threshold concept is mastered a learner has a new way to look at problems; "[t]hreshold concepts are defined as concepts that bind a subject together, being fundamental to ways of thinking and practising in that discipline" (Land, Cousin, Meyer, & Davies, 2005, p. 54). Learning to think within a discipline is characteristic of the transformative agenda, which demands that learners 'rework' their prior knowledge in the light of the new concept. The transfiguration of identity, reconstitution of knowledge and a discursive extension (Meyer & Land, 2006) serve to reposition the self, as learners acquire threshold concepts. This transformation also leads to an extension of learners' language in relation to the context of the concepts; in this way, "reconceptualization implies a discursive reconfiguration" (Meyer & Land, 2006, p. 21) as well as an ontological shift. Language represents enaction of new thinking, expressed, reflected upon, and communicated. What Meyer and Land (2005) are emphasizing is the inter-relatedness of a learner's identity with thinking and language.

3.2.2 Troublesome

Threshold concepts are often a challenge to a learner's existing knowledge, hence the label troublesome (Cousin, 2012). The branding of some knowledge as troublesome allies the

notion of threshold concepts with constructivist models of learning (Perkins, 2006). Troublesomeness in threshold concepts has gone by many names in other fields the impediment and frustration from an ‘epistemological obstacle’ by Brousseau (as cited in Land et al., 2005) or disjunction by Savin-Baden (2006). An understanding of troublesomeness in threshold concepts suggests that there is an emotional component to learning that is connected to the cognitive one (O’Brien, 2008b). Drawing upon Ellsworth’s (1997) conception of stuck places, troublesomeness can represent traces of cultural, social, educational or other influences that need to be transformed in order to lessen cognitive and emotional discomfort. Humphrey and Simpson (2012) suggest that the participants who have the hardest time crossing boundaries are those who have been educated in the natural sciences, where what constitutes a body of knowledge is more clearly established than in other fields. In fact, the emotional response to troublesome knowledge could provide possible evidence of threshold concepts in the vicinity (Lucas & Mladenovic, 2007) as learners stubbornly hold on to their original concepts before finally grasping the new concepts.

3.2.3 Irreversible

Threshold concept learning suggests that once crossed, the concept cannot be forgotten. Mastery of a threshold concept is significant enough to be permanent and is substantial enough that is it irreversible. This transformation explains why it is difficult for experts to put themselves back in the position of the novice learner (Walker, 2013) and connects with the integrative nature of threshold concepts. What was once effortful practice now becomes skill based or tacit knowledge.

3.2.4 Integrative

Mastering a threshold concept exposes the hidden interrelatedness of the phenomenon (Cousin, 2006; Meyer & Land, 2003; 2005). Land et al., (2005) suggest that a threshold conception exists when learners may grasp the concepts but are unable to comprehend the deeper level of understanding - the deep-seated assumptions which underpin particular concepts. But, recognizing the relationship between knowledge is seen as equally transformative to the process of learning. Walker (2013) calls this the product view of threshold concepts with learners moving towards expert knowledge. He suggests that the product view of threshold concepts invokes "ideas of deep learning, of being able to view the world in a different way, and of operating in a more effortful, conscious and knowledge based way" (p. 249). Performing with integrated knowledge "foregrounds not just how much knowledge you have but how much you can do with what you have" (Perkins, 2008, p. 4) thereby demonstrating a form of deep learning. Understanding subject knowledge as being connected and changed by its interaction with a threshold concepts reflects the development of expert knowledge, something developed in the mind of the learner.

3.2.5 Bounded

Threshold concepts are often but not always bounded. This means that the conceptual space will have terminal frontiers (Cousin, 2006; Meyer & Land, 2005) bordering threshold concepts in other conceptual areas or disciplines. Walker (2013) suggests that threshold concepts "enable the limits of new knowledge to become more apparent" (p. 25) through the use of specialist language or knowledge. The bounded nature of threshold concepts helps learners explore the edges of conceptual knowledge, which hopefully will lead to their questioning and

problematizing the accepted knowledge.

3.2.6 Discursive

Meyer and Land (2005) suggest that the crossing of a threshold will incorporate an enhanced and extended use of language. As individuals become familiar with the ways of thinking and practicing in the discipline, their language changes to include the discourse of a new field. The discursive nature of threshold concepts is important as the "acquisition of transformative concepts … brings with it new and empowering forms of expression that in many instances characterise distinctive ways of disciplinary *thinking*" (emphasis in the original, Meyer & Land, 2006, p. 20). This means that as a learner is enculturated into a discipline their language begins to reflect the discourse of the field. Trafford and Leshem (2009) concluded that candidates have achieved doctorateness when they are "thinking within a system of ideas and ways of understanding that others would recognize, respect, and accept" (p. 311). Carmichael (2010) suggested that "[t]hreshold concepts here become not only 'in the discipline' but play a role 'in the disciplining' of learners and in characterising the nature of the academic discipline" (p. 63) and help to transform their expectations of how future learning in the discipline might take place. Carmichael's (2010) conclusion implied that threshold concepts also act as gatekeepers to professional practice; the syntax and semantics of discourse are indicators of the threshold transitions.

3.2.7 Reconstitution

Understanding a threshold concept may entail an ontological or epistemological shift which is implied through the transformative and discursive characteristics already discussed.

While in the liminal state, learners begin to integrate their new knowledge with their established understanding. This may require that the learner change or discard their previous knowledge in favour of a new conception. Learners may not recognize that they are altering their knowledge as reconstitution likely begins during liminality and takes place throughout threshold concept mastery.

3.2.8 Liminality

Liminality is the space and time of instability. As a characteristic of threshold concepts, it is the "betwixt and between" period (Turner, 1969). Within the liminal state are the integration of new conceptual knowledge, discursive shifts, and the reconstitution of understanding before threshold concept mastery and irreversible transformation. It is one of the most important characteristics of threshold concepts, but also one of the most challenging to capture.

The concept of liminality was first applied in social anthropology by Arnold van Gennep, a French ethnographer, to describe the 'in-between' status of individuals at threshold points in rituals of transformation. He highlights the negative feelings or emotions of being in transition. The liminal state is often characterized by negative feelings (van Gennep, 1909). The concept was further developed by Victor Turner (1969) to describe a state of "indeterminacy, emotional destabilization, and status ambiguity" (Gourlay, 2009, p. 184) that is characteristic of transition. In anthropology, rituals of liminality tend to be transformative; through the ritual individuals acquire new knowledge and a new status or identity, although potentially protracted over time. Turner (1969) and van Gennep's (1909) definitions of liminality were used by Meyer and Land (2005) to highlight the inherent epistemological instability of threshold concepts mastery.

During the process of threshold concepts mastery, a learner occupies a transformative,

liminal state, where knowledge is less certain that it used to be, as they begin crossing a conceptual threshold (Land, 2012). In this way, liminality engages existing certainties and renders them problematic. It is unsettling as learners feel that their knowledge is partial or approximate (Land, 2012). As a result, the liminal space often involves oscillation between old knowledge and emergent understandings (Meyer & Land, 2006).

Work in threshold concepts encourages learners to engage in liminality – a space/place/time where play and experimentation will not be constrained by assumptions and conventions (Perkins, 2008). We "understand liminality as a place and a time which is outside of the conventional structures of process and in which there is the opportunity to engage in experimentation" (Humphrey & Simpson, 2012, p. 743). In this way, liminality can be scary but it can also be tremendously generative.

3.3 Critiques of Threshold Concepts

Critiques of threshold concepts can be summarized into two broad categories: the challenge of definition and the methods and methodologies used to inquire into threshold concepts. The following section will outline these critiques and suggest how this study will mitigate these concerns.

3.3.1 The Challenge of Definition

Defining threshold concepts is a challenge and the use of metaphor to clarify the process of threshold concept mastery is problematic. Specifically, metaphors do not always mean the same thing to each person; they are culturally situated. The concept of a threshold then becomes a threshold on its own. The image of a portal, doorway, or space implies a defined transition

from outside to inside which could be misleading (Gourlay, 2009). Using the metaphor of liminal spaces creates a dialectic of interiority versus exteriority and gives the impression of completion, when really conceptual development can never truly be finished. As discussed earlier, the liminal state is not a linear transition – it is an emotionally laden, epistemological shift. Unlike van Gennep's (1909) rites of passage, there is no "clear temporal moment or observable set of rites" to mark the transition (Gourlay, 2009, p. 189).

So, how then do instructors and learners define threshold concepts? Initially, definition was based upon the five threshold concept criteria (Meyer & Land, 2003), yet Carmichael (2012) has troubled whether all five criteria must be met every time. Participants in his project, particularly those from the social sciences and humanities, challenged the notion that threshold concepts could be identified as 'things-in-themselves'. This challenge aligns with critiques by Rowbottom (2007) who suggested that threshold concepts are impossible to isolate and specifically define. This concern is reflected in a broadening of work on threshold concepts to include abilities and skills (Carmichael, 2010).

Meyer and Land (2003) raise the salient question of whose threshold concepts are being taught. They were concerned that threshold concepts may be interpreted as a part of a "totalizing or colonizing view" of curriculum (p. 13), especially as the metaphors are considered to be culturally situated. Cousin (2012) sees this as an important challenge for threshold concepts. As Barradell (2013) notes, the majority of literature focused on identifying threshold concepts is focused first on the instructor, then the students, and very little from the perspective of the educational developer. This literature emphasizes the perspectival nature of teaching and learning (Cousin, 2012). This issue of perspective raises concerns as to who should be involved in the identification of threshold concepts and which views are impacting the curriculum design

that results.

> The task for course developers and designers here is to identify, through constructive (and constructivist) feedback, the source of these epistemological barriers, and subsequently to free up the blocked spaces by, for example, redesigning activities and sequences, through scaffolding, through provision of support materials and technologies or new conceptual tools, through mentoring or peer collaboration, to provide the necessary shift in perspective that might permit further personal development. (Land et al., 2005, pp. 62-63)

But, it is not as simple as Land et al. (2005) suggest. Their instrumentalist suggestion is still instructor focused and downplays the potential contributions of the other educational stakeholders, namely learners. There is an inherent tension between what participants bring with them into the emergent space, and the creativity of liminality. Ellsworth (1989) brought our attention to listening not to what the student knows, but what has shaped that knowledge. Therefore, involving various perspectives is important. Academics, educational developers, and students are all stakeholders in the academic process. Collaborative transactional curriculum inquiry (Cousin, 2008) recognizes the importance of disciplinary ways of thinking, curricular and pedagogical design in the integration of threshold concepts, and the student experience as learners in the process. However, challenges with threshold concepts arise when researchers identify different concepts as threshold or do not agree on why a concept is threshold.

In this study, the following definition of threshold concepts will be used: Threshold concepts are gateways. While the metaphor of a passageway is familiar, I envision the threshold concepts gateway to be wide, deep, and a little bit dark, like that of the entrance to a medieval

castle. Passing through the threshold gateway leads to an insider understanding and a different view of the concepts.

My intention is not to offer a simplistic definition of threshold concepts, but provide an image that simplifies the complexity of threshold crossing. While epistemological and ontological troublesomeness and oscillation through the gateway space may be challenging, there is room in the gateway for other people and ideas to support and sustain threshold crossing. Yet, the transformations that are part of threshold concept mastery are often very personal.

3.3.2 Methods and Methodologies of Inquiry

The early research by the ETL project set the template for subsequent threshold concepts research projects –focused on questionnaires and interviews – through research underpinned by a constructivist perspective (Perkins, 2006). Of the four disciplinary areas that were the subject of the ETL project (electronic engineering, cell and molecular biology, business economics, and history), it is business and engineering which were publishing their early work on the 'discovery' of threshold concepts within specific content fields. The methods described for these studies are rigorous and commensurate with the discipline under enquiry, often identifying a research methodology (i.e., ethnographic study in Yip & Raelin, 2012) as well as associated methods.

Research at the program level (Kinchin, Cabot, Kobus, & Woolford, 2011; Land & Meyer, 2011) has fewer specific methodologies than disciplinary research, and interdisciplinary threshold concepts research thus far has recently come under critique (Quinlan, Male, Baillie, Stamboulis, Fill, & Jaffer, 2013; Walker, 2013). Barradell (2013) suggests that the discussion of threshold concepts has not been undertaken with the requisite scholarly rigor, especially surrounding the identification of threshold concepts. There is a lack of clearly designed,

transparent methods to facilitate the development of a shared understanding of threshold concepts (Barradell, 2013) and, given the varied understandings of threshold concepts, it is not surprising to see a diverse set of research approaches, methods, and analytic tools (Irvine & Carmichael, 2009).

Recent adoption of phenomenographic methodology, a branch of phenomenology, has encouraged greater integration of participant feedback (Meyer, 2012), journals (Gourlay, 2009), and participant observation (Humphrey & Simpson, 2012; Yip & Raelin, 2012) into clearly stated, rigorous data collection. Kandlbinder and Peseta's (2009) inquiry into the challenges that instructors face when completing the post-graduate certificate in higher education teaching and learning in Australasia and the United Kingdom adopts a less reflective perspective, instead focusing on a questionnaire and explicitly articulated methods for research.

However, the discursive nature of threshold concepts

> makes it difficult, and possibly even undesirable, to attempt to establish universal 'standards' – and it may make it inadvisable to try to dictate any particular research approach or pattern of enquiry into threshold concepts: the research approaches adopted will align with the practitioner–researchers' conceptualizations of the issue. (Irvine & Carmichael, 2009, p. 116)

Encouraging enquirers to bring the tools native to their disciplines (Bunnell & Bernstein, 2012) and follow the conventions of disciplinary research serves to enhance the opportunities of interdisciplinary threshold concepts research (Carmichael, 2010). While the methodological openness does encourage researchers to bring their expertise to bear on threshold concepts

inquiry, such openness does subject researchers to the critique of who defines what is rigorous research in threshold concepts.

The broad definition of threshold concepts does not enforce a particular epistemology or pedagogy (Cousin, 2008), nor does their nature dictate a particular form of inquiry. This breadth has proved useful as a means of structuring data collection and analysis for participants new to enquiry into teaching and learning. This is both a benefit and a drawback to threshold concepts research. Openness invites scholars to engage in inquiry without concern for their novice ability/status; however the lack of consistency in rigorous methods leaves the field open to critique, as it appears too easy-going. Applying a comprehensive understanding of scholarship to threshold concepts research would benefit both the process of inquiry and the scholarly products. It is my hope that this phenomenological study will provide both a methodological structure and rigorous scholarship for the field of SoTL.

3.4 Threshold Concepts and the Scholarship of Teaching and Learning

Both SoTL and threshold concepts are focused on the broad context of teaching and learning experience. While threshold concepts were initially intended and used to inform discipline specific studies,

> their real power may lie in their role in cross-disciplinary discussions and … we have seen how their role as 'boundary objects' supports dialogues 'in the disciplines' between teachers and students; between teachers from different disciplinary backgrounds; and between subject specialists and educational researchers. (Carmichael, 2010, p. 67)

Davies and Mangan (2005) suggest that threshold concepts are useful additions to the ways of

thinking about teaching and learning in higher education, while Barradell (2013) and Cousin (2008) suggest that threshold concepts can provide a comfortable bridge between disciplinary expertise and pedagogical practice.

Of the four conceptual frameworks identified in the ETL project, ways of thinking and practicing within disciplines (WTP) are also of concern to educational leaders engaging in SoTL. Similar to Shulman's (1987) pedagogical content knowledge, WTP include subject specific thinking processes and skills that are purposefully applied in order to engage learners in practices specific to the discipline or field. Consideration of WTP in SoTL, as opposed to a specific discipline, challenges those investigating threshold concepts to consider what is distinctive about the field and the unique characteristics of threshold concepts in SoTL (Carmichael, 2010).

Central to this study is the consideration of what is unique about the field of study, the research site, and the research participants when investigating threshold concepts. Each field of study and participant group may have unique threshold concepts. For the educational leaders of the UBC SoTL Leadership Program, exploration of threshold concepts is less in the content knowledge and more to do with the challenges inherent in changing "one's inner landscape, perspective, and worldview" (O'Brien, 2008a, p. 9). Should enquirers into threshold concepts make some characteristics central and others peripheral? Land (2012) would say yes – troublesomeness is paramount. In his study, Carmichael (2010) raised the question of how many characteristics a threshold concept should have. The instructors he collaborated with felt that integrative and transformative were the two key threshold concepts criteria. Some scholars have questioned boundedness as an imperative characteristic of threshold concepts, demonstrating that it limits enquiry to cognitive perspectives in specific disciplinary settings. The following section will discuss the characteristics of threshold concepts as they relate to this study on threshold

concepts in SoTL.

The eight characteristics of threshold concepts have all been considered in the identification of the potential threshold concepts in Chapter Five. However, not all characteristics were considered to be of equal weight. Troublesome knowledge, depending on discipline and context, might be alien, counter-intuitive, ritualised, or conceptually difficult. This means that the new knowledge is different from, or perhaps challenges, their customary understanding (Cousin, 2006; Land et al., 2010; Perkins, 2006). Investigation into threshold concepts has the potential to locate troublesome aspects of knowledge and assist instructors "in identifying appropriate ways of modifying or redesigning curricula to enable their students to negotiate transitions more successfully" (Land et al., 2005, p 63). For the purposes of this study, troublesome knowledge was used as a key, often early, indicator of potential threshold concepts.

Next, educational leaders experience of liminality is an important characteristic of potential threshold concepts in SoTL. The liminal is a time and intellectual space where the threshold concepts characteristics of integration, reconstitution, and discursive changes are solidified. Much like doctoral candidates learning to write up their research (Humphrey & Simpson, 2012), the educational leaders in the UBC SoTL Leadership Program will be bringing together knowledge in SoTL and integrating that with their disciplinary understandings. However, transition to "studenthood" (Cousin, 2012) can propel educational leaders into insecurity as they are moving from the role of expert in their discipline to that of novice in the scholarship of teaching and learning. This move can be highly intimidating, especially to educational leaders in higher education who often are charged with making high stakes decisions about curriculum at research-intensive universities. Holloway, Alpay, and Bull (2010) suggest that the characteristics of threshold concepts can only be tested at the end of liminality or after a

threshold has been crossed. For example, there are times during the educational leaders' induction into SoTL when they will begin to demonstrate integrative and reconstitutive shifts (e.g., through questions asked in classroom sessions or responses to interview questions); however these shifts may not be consistent across all aspects of their understanding of SoTL. As a result, the characteristic of liminality is a second criterion for evaluating the threshold concepts in the study, but it includes sensitivity to integration and reconstitution.

The clearest external indicator of transition through the liminal state is the use of SoTL discourse. Threshold concept mastery incorporates a changed use and comprehension of language (Meyer & Land, 2005). Understanding and using the discourse connected with a field could be seen as evidence of new thinking being expressed. When entering into the field of SoTL, educational leaders are like outsiders crossing into a new country with limited knowledge of the language and customs (Gourlay, 2009). While this could be an important indicator of threshold concept mastery, I am wary of placing too much emphasis on specific word choice. Instead, it will be important to listen for the lived experience of transformation and integration of troublesome knowledge. Therefore, the threshold concept characteristic, discursive, will be considered as part of transformation.

Transformation through threshold concept mastery is both cognitive and affective (Cousin, 2006). In their study of undergraduate Economics, Davies and Mangan (2005) note that the more transformative a threshold concept, the more likely it will be troublesome because mastery of the concept requires reconfiguring of previous knowledge. The cognitive transformation is evidenced through the integration and application of new information. This is also important for this study as educational leaders must often reconfigure their disciplinary knowledge in light of new connotative meanings within SoTL literature. The second aspect of

transformation that is helpful for conceptualizing this study is the affective transformation. Learning requires making a shift to reinterpret the constructed nature of what was previously held as true. Once a threshold concept is mastered, learners are transformed by feelings of confidence and achievement (Entwistle, 2008). Like Walker (2013), I suggest that transformation can be seen as a superordinate category under which irreversibility can be grouped. Much like cognitive and affective transformations, once a threshold concept has been mastered, it cannot be unlearned. For the purpose of this study, the characteristic of irreversibility is less important as it is often tied up within transformation.

Finally, I will discuss the characteristic of boundedness. Like the threshold concepts studies discussed previously, threshold concepts may not be clearly bounded, but may overlap between fields creating 'resonances' (Cousin, 2006). As a result, boundedness is of the lowest importance in this study. Threshold concepts that straddle a boundary speak to the amalgamation of knowledge, often across diverse fields. Within the UBC SoTL Leadership Program there are educational leaders from diverse disciplinary cultures, so it is important to consider how threshold concepts in SoTL will resonate within their teaching and learning context. Identifying the boundary of a threshold concept in SoTL would seem to constrain the resonances across fields and discourage dialogue between disciplines.

3.5 Summary

Investigations into threshold concepts over the last decade have led to their current conception, where they have much to offer inquiry in teaching and learning at research-intensive universities. The increasing theorizing of threshold concepts within curriculum development (Carmichael, 2012; Land, 2012) could help faculty developers consider how threshold concepts

in SoTL could assist educational leaders as they enter the field. As SoTL continues to mature as a field, threshold concepts within SOTL could serve to 'discipline' educational leaders who are new to the field in the nature of SoTL as a discipline.

As this is a study of the lived experience of educational leaders learning threshold concepts in SoTL, previous research in doctoral education and faculty development has proved useful. While many educational leaders who engage in SoTL are discipline experts, much like doctoral students and candidates, they are entering a new field (with its own paradigmatic research understandings) and are similarly discomfited. In order to encourage educational leaders to adopt a SoTL framework for their inquiries into practice, faculty development professionals need to identify and incorporate an understanding of the threshold concepts in SoTL. Using the eight characteristics of threshold concepts to investigate the findings with particular emphasis on the characteristics troublesome, liminal, transformative, and bounded, this study adopted a phenomenological methodology focused on the lived experience of educational leaders that offers a unique and privileged insight into threshold concepts in SoTL.

Chapter 4: Methodology and Methods

This study explored threshold concepts in the scholarship of teaching and learning with particular attention to producing systematic, comprehensive high quality research (D'Andrea, 2006). As introduced briefly in Section 1.4 and 1.5, the study was designed as a phenomenological inquiry into threshold concepts in SoTL through the lived experience of educational leaders. This chapter describes the framework that was used to connect my beliefs, my research goals, and the participants' experience of threshold concepts in SoTL within the UBC SoTL Leadership Program context. Participant observation of cohort sessions, a questionnaire, semi-structured interviews, and document analysis of portfolios were employed as methods to provide multiple sources of information for detailed, in-depth exploration of threshold concepts in SoTL.

Chapter Four begins with an introduction to phenomenology. This introduction addresses the common understandings within phenomenology, as well as responding to the question of why phenomenology is useful for examination of lived experience. I articulate why phenomenology was used in this study, exploring of the underpinnings of SoTL research and phenomenological inquiry. The chapter continues with a description of the study pragmatics. Following a description of the study setting, its participants, and the methods of data collection, management, and analysis, the conceptual structure of the study and the theoretical framework used to guide data collection are shared. The chapter concludes with comments on issues of credibility, ethical considerations, and the limitations of the study.

4.1 Introduction to the Methodology

In this section, I outline the methodology that I have selected for this research study, interpretive phenomenology. While this type of phenomenology has been described as hermeneutic or interpretive phenomenology, for the sake of clarity I will refer to it as interpretive phenomenology throughout the remainder of this dissertation. I first outline my rationale for selecting this particular research approach and highlight the philosophical underpinnings of phenomenology. I then articulate my understandings and assumptions of relevance to the study.

4.1.1 The Research Approach

My purpose in this qualitative exploratory study was to examine the nature and substance of threshold concepts in SoTL through the lived experience of educational leaders. A qualitative approach is appropriate for this study as little is know about the phenomena of threshold concepts in SoTL. This approach to the research study provided rich, detailed accounts of the phenomena of interest (Creswell, 2013).

The questions that guide this research are: ***For institution-level/Faculty-level educational leaders at a Canadian research-intensive university, what are the nature and substance of threshold concepts in SoTL?*** This is followed by a second question that examines ***what enhances or constrains their ability to navigate threshold concepts in SoTL?*** With these research questions forefront in my mind when designing the research study, a number of qualitative methods that use individuals' descriptions of their experiences as data were considered including case study, grounded theory, and narrative inquiry. These research approaches differ in their focus and purpose and therefore have varying degrees of appropriateness for the current study. For example, a case study would help to describe the

context or setting for the study, but might be too focused on a particular cohort, that is, the UBC SoTL Leadership Program. A grounded theory approach would seek to generate explanatory theory in SoTL rather than developing a better understanding of the nature and substance of threshold concepts in SoTL. A narrative inquiry would focus too much on the individual experience and not the similarities across the lived experience of a phenomenon. Given that the study aimed to understand the nature and substance of threshold concepts in SoTL, an interpretive phenomenological inquiry was determined to be the most appropriate approach. This allowed me to gain an in-depth understanding of the lived experience of educational leaders as SoTL scholars and the personal meaning making that they attribute to their experience (van Manen, 1997).

4.1.2 What is Phenomenology?

As a philosophical approach, phenomenology has common ground with exploring the meaning given to the experience of phenomena from the inside in order to discover shared meaning. Phenomenological inquiry is a research approach that focuses on describing the common meaning for several individuals of their lived experience of a phenomenon (Creswell, 2013). By turning our attention to and investigating tacit understandings, phenomenological inquiry seeks out the "novel features of familiar situations" (Giorgi & Giorgi, 2003, p. 249) through the experience of participants. As an approach to research, phenomenological inquiry is characterized by an emphasis on the phenomenon under study as a single idea or concept, a heterogeneous group who have experienced the phenomenon, emphasis on the broader philosophical assumptions that are central to the research, data collection typically done through interviews, data analysis that attempts to move from narrow units to broader themes, and

culmination in a description of the essence of the phenomenon (Creswell, 2013). In this case, the purpose of phenomenological inquiry is not to solve problems of learning SoTL, but to come to a better understanding of what it means to learn SoTL.

Edmund Husserl is acknowledged as the father of phenomenology in the twentieth century. The aim of Husserl's phenomenology is to return to the concrete reality of pure phenomena (Groenewald, 2004). One of the defining features of Husserl's phenomenology was to determine the essence; he distinguished between conscious knowledge and the phenomena at which the consciousness is directed (Laverty, 2003). Husserl proposed that the natural standpoint, characterized by the belief that objects exist separate from the perception of the subject, helped to constitute the objects (Laverty, 2003).

Husserl's student, Martin Heiddeger, introduced new concepts into phenomenology, building upon philosophers in diverse areas such as psychology, sociology, and education. As a result, phenomenology has become a contemporary family of philosophical approaches and divergent beliefs (Dall'Alba, 2009) that stem from the two main branches of descriptive and interpretive phenomenology. The relevant features of the two branches are summarized in Table 4.1 and will be discussed in the next two sections.

4.1.2.1 Descriptive Phenomenology

Husserl (1900/1970) advocated that human experience is the source of knowledge. He stressed intentionality, the relationship between consciousness and an object, as a key aspect of his philosophy. Also called transcendental phenomenology (Moustakas, 1994), descriptive phenomenology attempts to reduce individual experiences to the description of a universal

essence (Creswell, 2013), suggesting that there are features of lived experience that are common to all persons who have that experience and that those experiences are

Table 4.1
A Comparison of Descriptive and Interpretive Phenomenology

	Descriptive (or Transcendental) Phenomenology	**Interpretive (or Hermeneutic) Phenomenology**
Theorists	Husserl (1900/1970), Moustakas (1994)	Heidegger (1927/1962), van Manen (1997)
Focus of inquiry	Experience as perceived by human consciousness has value and should be an object of study.	Relation of the individual to their lifeworld (being-in-the-world)
Typical Data Sources and Analysis	Narrative interviews Moustakas (1994) suggests systematic steps of analysis in order to expose commonalities in the experience of the participants identified in order to generalize.	Interviews Van Manen (1997) uses flexible analysis procedures to explain what the individual's narrative implies about their experience
Role of the Researcher	Achieve transcendental subjectivity.	Use expert knowledge to guide inquiry and make it meaningful.
Assumptions	Features of lived experience are common to all persons who have that experience.	Human actions are influenced by what people believe to be real.
	Human experience can be consciously expressed	Co-constitutionality
	Radical autonomy	Situated freedom
Research Outcome	Description of universal essence	Individual experience contributes to commonalities in and differences between their subjective experience

consciously expressed. Husserl's notion of radical autonomy, the belief that the impact of culture, society and politics does not need to be considered as humans are free agents who have

the responsibility for influencing their environment, underpins descriptive phenomenology. As a result, the goal of descriptive phenomenology is to examine experience for its essence before it is interpreted, rendering objective topics that are normally considered subjective. The role of the researcher is then to achieve transcendental subjectivity. This can be achieved by suspending judgment about what is real and practicing objectivity through bracketing, in which researchers openly state and set aside their preconceptions and assumptions. It is essential for the researcher to shed all prior personal knowledge in order to grasp the essential lived experiences of those being studied.

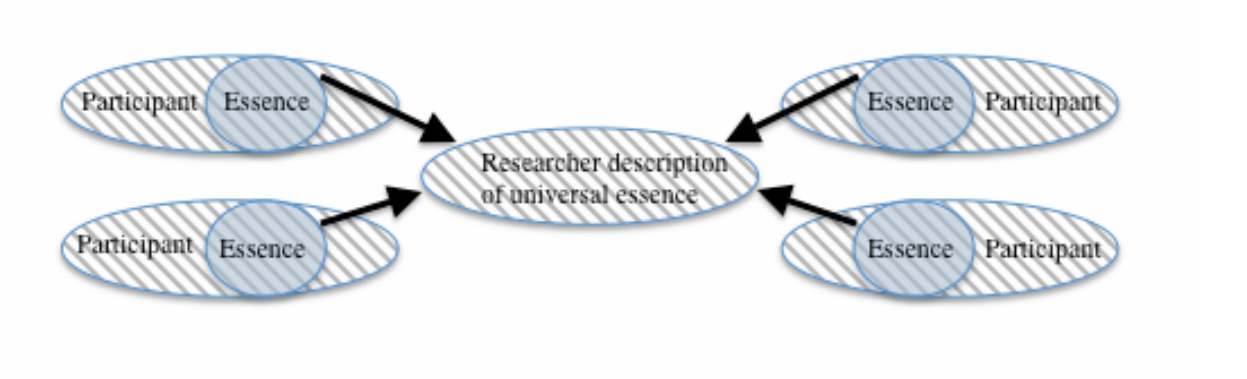


Figure 4.1. Descriptive Phenomenology.

Figure 4.1 shows the process by which the research is able to develop a description of a universal essence. This process allows the researcher to develop descriptive categories of the perceived world. However, for this study, there are specific challenges to the use of descriptive phenomenology. First, participants need to be carefully selected in order to ensure that they have all experienced the phenomenon. While all of the participants in this study have been members of the UBC SoTL Leadership Program, the program has evolved over sixteen years and there are a variety of cohorts represented. Next, descriptive phenomenological inquiry may prove to be too structured in data collection and analysis. Moustakas' (1994) guidelines for phenomenological

inquiry provide a systematic approach to analysis; however, the production of a composite description of an essence is unsuitable as participants' unique experiences as they navigate threshold concepts at varying levels of fluidity may not create a universal whole. Finally, bracketing is impossible within the current study. As a past graduate of the UBC SoTL Leadership Program and a member of the instructional team, my experience cannot be placed outside of the research when it is part of the impetus for the study.

4.1.2.2 Interpretive Phenomenology

Heidegger (1927/1962) believed that humans are situated in and influenced by their lifeworld and this lifeworld should be the focus of the inquiry (Lopez & Willis, 2004). As a reaction to the positivist research tradition, Heidegger turned his focus away from knowing (epistemology) and towards understanding (ontology), acknowledging that both the researcher and the participants bring their perspectives to an understanding of the phenomena.

The focus of interpretive phenomenological inquiry is the individual's subjective experience and understanding of the individual's world becomes the focus of inquiry. Drawing on Heidegger's belief in the relation of the individual to their lifeworld, interpretive phenomenology assumes that individuals make choices, but they are circumscribed by the specific conditions of their everyday life, known as situated freedom. This contextual understanding of experience suggests that description of phenomena without interpretation is impossible (van Manen, 1997). As there is no objective truth to be described, there are a number of possible interpretations when exploring a particular phenomenon. The notion of co-constitutionality (Lopez & Willis, 2004) suggests that the meanings at which a researcher arrives

are a blend of the interpretations of the participants and the researcher, pulling together the common aspects of the subjective experience.

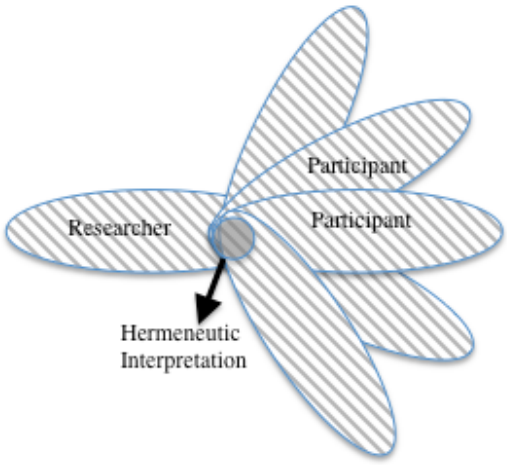


Figure 4.2. Interpretive Phenomenology.

Figure 4.2 highlights the intersection point at which the researcher develops the hermeneutic interpretation. Rather than collecting individual essences from each lived experience as in descriptive phenomenology, the commonalities and differences in the individual subjective experiences contribute to the description of the meanings that participants make and how those meanings influence their choices. The goal of this study was to understand in detail the experiences of a particular group of educational leaders and, as such, an interpretive phenomenological approach was adopted. While general themes were drawn from the corpus of data, a focus on the particular is commensurate with my belief that every participant's account represents a unique truth, as each of their experiences is embedded in their background and context. Therefore, the objective was not to determine one universal meaning of the phenomena of threshold concepts in SoTL, but to attend to the unique experience of each participant.

Interpretive phenomenology emerges from the hermeneutic tradition, taking the study of phenomena beyond description of core concepts to look for meanings embedded in human experience rather than what they consciously know. Therefore, the interpretive approach is used to focus the inquiry on an understudied area and then make decisions about the sample, participants, and research questions. In this way, interpretive phenomenology "must be responsive to the phenomena being explored" (Dall'Alba, 2009, p. 8) and the iterative data collection and analysis procedures of this study, discussed later in this chapter, reflect that responsiveness.

In interpretive phenomenology, bracketing has a slightly different meaning. It is impossible for me to put aside my previous knowledge, as that knowledge is central to how I know the world (van Manen, 1997). Instead I reflected on the tacit knowledge, beliefs, and assumptions that I brought to the study. It was important for me to consciously determine how and in what way my personal understanding would be introduced. Rather than bracket out my experience, my presuppositions and knowledge help to guide the inquiry and make it meaningful (Lopez & Willis, 2004). For example, my knowledge of the background literature is what leads us to gaps in the knowledge and how the inquiry should proceed. In this study, the research questions draw explicitly on my experience as an educational leader and SoTL instructor, not to determine if threshold concepts exist in SoTL but to explore their nature and substance. As stated in section 1.7, my experiences as a UBC SoTL Leadership Program participant and member of the instructional team have led me to believe that there are conceptual barriers to learning SoTL. However, I was also aware that my background as a teacher educator and member of a Faculty of Education does provide me with a particular understanding of the concepts and discourse of teaching and learning in higher education. Following every interview and observation of a UBC

SoTL Leadership Program session, I wrote reflections on my experience of learning SoTL and learning to be a SoTL researcher.

4.2 Research Procedure

Interpretive phenomenological research, despite having similar underlying concepts and principles, provides no detailed procedures for the researcher to follow. However, van Manen (1997) outlined six steps that informed the research procedure of this study. These steps are: 1) turning to a phenomenon of interest; 2) investigating experience as lived rather than conceptualized; 3) reflecting on the essential themes; 4) describing the phenomenon through writing and re-writing; 5) maintaining a focus on the phenomenon; and 6) balancing the research by considering the parts and the whole. While the research did not follow the steps in a linear process, each was important in the collection and analysis of the corpus of data and will be discussed with its relevance to the study.

Step one suggests that a researcher must conduct inquiry on topics that are of personal interest or concern (van Manen, 1997). This particular study was rooted within a location and context in which both the phenomena and the researcher exist. As a result, I became interested in the phenomena through my role as an instructor of diverse cohorts in the UBC SoTL Leadership Program. Throughout the research process, I endeavored to be aware and reflective of my background, beliefs, and assumptions.

When considering the experience as lived rather than conceptualized, it is important to connect with original experience. In order to do so, the researcher must immerse him/herself in the phenomena in order to truly understand the lived experience and meaning that participants ascribe to the experience. In this study, data were collected through observations, interviews,

document analysis, and reflective writing. While the primary method of data collection was in-depth responsive interviews (Rubin & Rubin, 2005), participant observation in the classroom sessions of the UBC SoTL Leadership Program immersed me in their experience. Document analysis of participants' portfolios also allowed me to enter their reflective process.

Reflecting on the essential themes is necessary to determine the nature of the phenomenon (van Manen, 1997). When reviewing the data corpus, the researcher reflects on the meaning of the experience that is signified in the unit, clusters, and themes that are obtained from the transcripts. Through this process, a hermeneutic interpretation coalesced through the clusters and themes that I identified. One important challenge to note was the selection of essential units, clusters, and themes as there were aspects of the phenomenon that were essential to individuals but not shared across this particular sample of participants.

Van Manen's (1997) fourth step is describing the phenomena through writing and re-writing. Describing the phenomena was loosely interpreted within this study to include written responses, conversations with colleagues, and the use of responsive interview technique (Rubin & Rubin, 2005) with participants. The iterative process of observing, reflecting, writing, questioning, tweaking the interview questions, and so on allowed a fulsome description of the phenomenon to emerge (Boeije, 2002).

However, this process of writing and re-writing has the danger at times of steering me away from the research questions, so it was important to refocus on the phenomenon under study. When designing the questions for follow up interviews or reflecting on the data collected during participant observation, I returned to the purpose of the study. Once the data collection was completed, it was important to reacquaint myself with the process of developing the research

questions in order to revisit the thinking behind them and to ensure that the analysis was focused on capturing the essential themes.

The final step acknowledges the need for openness to emergence. While research procedures help to structure and outline the process, it is important that the researcher move fluidly between the minutiae of the data and the big picture of the research project. Throughout the data collection and analysis, each of the parts continued to inform the whole, moving back and forth between experience of the current cohort, interviews with past graduates of the program, and conversations with the instructional team.

4.2.1 Research Setting, Context, and Participants

The primary settings for this study were offices, teaching spaces, and meeting places for participants in the UBC SoTL Leadership Program. The UBC SoTL Leadership Program is situated within a unique context, with supportive university governance and long standing institutional initiatives (as discussed in Chapter 2) supporting the development and sustainment of SoTL across the university. This program promotes explicit engagement in scholarship that is informed by literature, methodologically rigorous, and peer reviewed.

The University of British Columbia Behavioural Research Ethics Board approved the research study on June 13th, 2012. At this time, preparations were made to recruit two groups of participants, members of the incoming 2013-14 cohort and past graduates of the UBC SoTL Leadership Program (242 as of August 31, 2013), in order to develop a heterogeneous sample of individuals with a common experience. The recruitment and data collection of each group will be described separately. Initial sampling was used to invite participants who could contribute to the exploration of threshold concepts in SoTL (Creswell, 2013). It was important to select a study

sample that represented the diversity and complexity of the UBC SoTL Leadership Program participants as well as one that could offer unique, in-depth understanding of participants' experience learning SoTL. Sampling criteria sought to include participants from a range of the 15 previous cohorts and faculty affiliations.

4.2.1.1 2013-2014 UBC SoTL Leadership Program

In a phenomenological study, sample size is less important than the richness of the data collected (Creswell, 2013). As a result, I continued to recruit participants and collect data until no new themes appeared to emerge. Participant affiliations by faculty of the UBC SoTL Leadership Program are presented in Table 4.2. Of the eight faculties represented within the cohort, participants were members of six different faculties. The cohort had higher than average representation from the Faculties of Medicine and Science and lower than average representation of the Faculties of Arts and Education. As a result, it is not surprising that the participant group has significantly higher representation from the Faculties of Medicine, and Science with eight of the 13.

The 2013-14 cohort began with 23 members, representing eight of the twelve faculties at UBC. Ultimately 13 cohort members would consent to be part of the study. Of the 23 cohort members, eleven agreed to be part of the study in September 2013. In December 2013, one participant from the Faculty of Medicine was added. In April 2014, one participant asked to take part in the study. This participant's portfolio and one interview were included in the data. In March 2014, two participants withdrew from the cohort, did not complete a portfolio, and were not available for interviews, although they allowed their earlier data to remain in the study.

Table 4.2
Participation Information for the UBC SoTL Leadership Program

Faculty	# of UBC SoTL Leadership Program Graduates (as of August, 2013)	% of graduates of the UBC SoTL Leadership Program by Faculty	Representation in the 2013-14 cohort	% of the cohort by faculty	# of consenting participants	# who complete / graduate
Applied Science	38	15.7%	3	13%	2	2
Arts	26	10.7%	1	4.3%	0	
Dentistry	21	8.7%				
Education	37	15.3%	2	8.6%	1	0
Forestry	9	3.7%	1	4.3%	1	1
Graduate & Postdoctoral Studies (G&PS)	4	1.7%				
Land & Food Systems (L&FS)	3	1.2%	1	4.3%	1	1
Law	5	2.1%				
Medicine	51	21.1%	10	43.5%	5	4
Pharmaceutical Sciences	20	8.3%	2	8.6%	0	0
Sauder School of Business (Sauder)	14	5.7%				
Science	14	5.8%	3	13%	3	3

However, this withdrawal was not problematic, as similar patterns had begun to repeatedly emerge in the interviews by this point.

Participants from the 2013-14 UBC SoTL Leadership Program were invited to participate in the study following the Prior Learning Assessment meetings (held in June, 2013) and the first classroom session of the program. I addressed all members of the cohort and copies of the letter of invitation and the consent form (Creswell, 2013) were distributed (see Appendix A). Volunteers responded by reading the materials and contacting me in person or by email. They were then contacted by email to set-up an initial conversation to discuss the study and answer any questions or concerns regarding their participation.

At the initial meeting, the background and purpose of the study were reviewed. Participant involvement, data collection procedures (participant observation in classroom sessions, one-on-one semi-structured interviews, and portfolio analysis), and informed consent were discussed. Most of these meetings took place following UBC SoTL Leadership Program class sessions, in the participant's office, or by phone depending on the availability and circumstances of the participants. The decision to participate was the participant's and if they were interested, they were asked to provide written consent and were included in the study. An additional copy of the letter of consent was provided to study participants at this meeting, or sent via email if the meeting was by phone, and the signed consent forms were collected, placed in a sealed folder, and stored in a locked cabinet in the researcher's office in the Neville Scarfe Building at UBC. None of the participants declined to participate at the initial meeting; however two eventually withdrew from the UBC SoTL Leadership Program cohort and therefore from the study. All contact information was considered confidential and stored in an encrypted file on a password-protected computer.

4.2.1.2 Data Collection Methods: 2013-2014 UBC SoTL Leadership Program

In order to address the purpose of the study and answer the research questions in a manner consistent with phenomenological inquiry (van Manen, 1997), the data collected consisted of participant observation of UBC SoTL Leadership Program classroom sessions, one-on-one semi-structured interviews conducted between October of 2013 and May of 2014, portfolio documents, and research journal entries. To answer research questions one and two, it was important to understand the experience and coping strategies of UBC SoTL Leadership Program participants as they navigated threshold concepts in SoTL. The participant observation of classroom sessions, the interviews, and portfolio documents provided a broad understanding of the potential threshold concepts encountered by participants and the nature and substance of these thresholds. These "stuck places" of troublesome SoTL knowledge (Meyer & Land, 2003) would be evidenced in the questions, concerns, and topics of discussion in the classroom sessions and in the interview. To answer research question two, semi-structured interviews, analysis of participants' portfolios, and participant observation of classroom sessions were used to gather perspectives from study participants on the potential threshold concepts and the propitious modalities for developing deep understanding within the scholarship of teaching and learning.

4.2.1.2.1 Participant Observation of Classroom Sessions

The eight classroom sessions of the UBC SoTL Leadership Program (September 2013 – March 2014) were documented in field notes. Acting as a participant observer in the classroom interaction enabled me to note the participants' observations and questions (often highlighting troublesome knowledge), as well as review the classroom discourse during the session (research

questions one and two). Each session was recorded using a protocol (Delamont, 2002) and key concepts and issues raised in the workshop sessions and in the less formal periods before each session, during the breaks, and following each session formed the foundation for the interview questions (see Appendix B for an example of the observation form and protocol). No information about non-participants was recorded. If a participant responded to a question from a non-participant a general note on the theme of the question was recorded. Debriefing sessions of between 15-30 minutes were held with the instructional team following the class sessions to discuss issues that arose and while these sessions were not recorded, they did inform researcher reflection after the session. Within 48 hours of the observation, initial hand written field notes and researcher reflections were developed into comprehensive summaries. A total of 20 hours of classroom time was observed and eight summaries generated. The classroom observations function as supporting evidence as to how participants experienced threshold concepts in SoTL and how their understanding of SoTL was affected.

4.2.1.2.2 Semi-Structured Responsive Interviews

A review of literature indicates that interviews are the most common method of data collection used in higher education threshold concepts research with subject matter experts (Humphrey & Simpson, 2012; Irvine & Carmichael, 2009; Kiley, 2009; Kiley & Wisker, 2009). Interviews were therefore used in this study to explore participant's lived experience of threshold concepts in SoTL within the context of the UBC SoTL Leadership Program (research questions one and two). Twenty semi-structured interviews were conducted with cohort members between October 21, 2013 and May 31, 2014. Nine of the audio taped interviews with the 2013-2014 cohort were transcribed by a professional transcriptionist and I reviewed them by listening to the

interview, reading the transcript, and editing for accuracy (DiCicco-Bloom & Crabtree, 2006). I transcribed ten of the audio taped interviews with the 2013-2014 cohort. One of the interviews was not audio recorded; however notes were taken throughout the interview. Interview transcripts were either sent to the participant for review or reviewed with the participant during the second interview in an attempt to ensure that the initial coding was representative of the experiences of the interviewee and interviewee.

Involvement with the participants from the Prior Learning Assessment meetings (in June 2013), email communication, technical support, and attendance at every class session provided me with contextual understanding of the participants' learning journey. The participants were familiar with my presence and acutely aware of my involvement with the UBC SoTL Leadership Program instructional team. This familiarity served as a sensitizing frame when planning and executing the interviews. While there may be a difference between the participants' retelling of events and my recording of them, I had a greater contextual understanding of their journey. Most interviews took place in the participant's office, but some were scheduled for an alternate location of their choosing (particularly for current cohort members or past graduates who work at off campus sites). The date, time, and location of the interviews were negotiated with the participant in advance. They were provided with an outline of the interview protocol and themes to be discussed in order to encourage focused discussion, however no specific interview questions were provided in advance as the participants were invited to be active in determining the direction and emphasis of the interview (Rubin & Rubin, 2005; Seidman, 2006). The list of questions (see Appendix B for exemplars of preamble and questions in the interview protocol) was not used as a rigid interview guideline, but rather as a checklist to monitor whether the topic was addressed from various perspectives in the interview.

Each interview lasted approximately 30 minutes and was conducted by me. The interview began with a preamble that reviewed the study purpose and reiterated informed consent, as well as the confidentiality of participation in the study. An overview of the responsive interview format (Rubin & Rubin, 2005) was provided as well as potential follow up opportunities (i.e., follow up interviews, email communication, and sharing of research findings). The semi-structured interviews focused on revealing two main points: the experience of learning SoTL as lived by the participant and the impact of these threshold concepts on their understanding of SoTL.

Attempts were made to follow responsive interview technique (Rubin & Rubin, 2005) in order to generate "thick description" (Geertz, as cited in Rubin & Rubin, 2005, p. 15). The process of participant observation followed by two interviews acted as a modified version of Seidman's (2006) three-step phenomenological interview. However, rather than explicitly gather a focused life history, the participant observations established the context of their experience in the SoTL FCP. The first interview allowed participants to reconstruct the details of their experience within the context in which it occurs. Finally, a second interview encouraged participants to reflect on the meaning their experience held for them (Charmaz, 2006). As a result, the interview script evolved and changed from one interview to the next and was dependent on the experiences and perceptions of each participant, highlighting the fact that this type of interview facilitates depth over breadth. Probing questions were used to explore in greater depth while follow up questions were used to achieve richness through exploration of key words, ideas, and themes. In the interview sessions, participants were invited to ask the researcher questions, which proved elucidating as to their individual thresholds. In keeping with interpretive phenomenology, both the participant and the researcher were seen to be interpreting

the ideas raised throughout their interaction. In the hope that the interviewees would consider these extended conversations, cohort participants were interviewed twice in order to access the ongoing and dynamic unfolding of their perspectives (Koro-Ljungberg, 2008). Each interview was audio recorded. During the interviews, observational notes were recorded and a researcher reflection was written following each interview. These supplementary documents acted as a macro focus for each interview and an organizing framework for early analysis. They also suggested some emergent questions that needed to be asked or situations that needed to be observed in upcoming phases of the research.

4.2.1.2.3 Portfolios

To gather data on the experience of participants enrolled in the UBC SoTL Leadership Program, document analysis was conducted on several relevant sections of the participants' portfolios. Much like the classroom observations, analysis of the portfolio documents confirmed the developing understanding of SoTL and potential threshold concepts over the course of the UBC SoTL Leadership Program (Altheide, Coyle, DeVriese, & Schneider, 2008). Drawing on the past use of journals in threshold concepts research (Gourlay, 2009; Yip & Raelin, 2012), these SoTL portfolios were used to explore the experience of transition as well as insights gathered during classroom experiences as documents are social artifacts that are produced, shared, and used in socially organized ways (Bowen, 2009). Similar to a reflective journal used in Gourlay's (2009) study of first year transition, the portfolio entries document participants' experiences, attitudes, and learning through a variety of forms in an unstructured, flexible way. The teaching dossier, monthly reflections, peer review of teaching documents, and capstone projects provided personal context for goals and objectives, as well as highlighting the values,

epistemologies, and ontologies of the participants. These documents provided the context within which participants operated. With the permission of the cohort members, their portfolios were reviewed in December of 2013 and the finished ePortfolio was captured on April 26, 2014.

4.2.1.2.4 Research Journal

A research journal provided a place to reflect on my experiences and evolving understandings as I was embedded within the UBC SoTL Leadership Program, to bracket my assumptions about the experience of being a new SoTL scholar, and to trace threshold concept development that may have not been immediately apparent. At the intersection of instruction and instructional research, an autobiographical journal helped me to acknowledge my assumptions and experiences of SoTL, while learning about the experiences of the new SoTL scholars. In this study, the documents were used in combination with other methods of data collection as a means of triangulation.

4.2.1.3 Past Graduates of the UBC SoTL Leadership Program

In this study, educational leaders previously enrolled in the UBC SoTL Leadership Program made up the pool of potential participants. As the program has existed for 16 years, it is not surprising that the curriculum has evolved to reflect the changes in the field. Originally focused on SoTL, since 2008 the program has concentrated on developing strategic SoTL Leadership. To date, over 250 UBC faculty and staff have graduated from the program. As well, there have been over 100 external faculty members who have successful taken part through blended (online and residency) programs. For the purposes of this study, focus was placed on the 242 UBC faculty members and staff who graduated in the first 15 years of the program.

On November 7, 2013, the 242 past graduates of the UBC SoTL Leadership Program were invited by Dr. H. Hubball, via email, to complete an online questionnaire. A copy of the email and the questionnaire can be found in Appendix B. They were told their participation was voluntary and confidential, and that they would complete the questionnaire on line. Participants were allotted one month to complete the questionnaire. A follow-up, reminder email was sent about three weeks later. Thirty participants completed the online questionnaire and 20 agreed to take part in follow up interviews. There were two additional interviews conducted with past graduates who did not complete the questionnaire but were interested in taking part in the research study. Table 4.3 highlights the diversity of the questionnaire respondents as a matrix of Faculty affiliation and year of UBC SoTL Leadership Program completion.

Although my extensive contextual knowledge and personal rapport with past graduates was helpful for generating participants, it was imperative to minimize my tacit knowledge and to render the familiar experience strange through the eyes of the participants through ongoing reflexivity (Pillow, 2003). Using a research journal, reflections were written following each step of the recruitment and data collection process in order to bracket my assumptions and focus on the experience as lived by the participants.

4.2.1.4 Data Collection Methods: Past Graduates of the UBC SoTL Leadership Program

In order to address the purpose of the study and answer the research questions, the data collected with the past graduates of the UBC SoTL Leadership Program consisted of a questionnaire and one-on-one semi-structured interviews. Described below are the methods used for data collection with the 32 past graduates of the UBC SoTL Leadership Program.

Table 4.3
Matrix of Participants who are Past Graduates of the UBC SoTL Leadership Program

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
Applied Sciences						1					1				1	3
Arts	1		2	1												4
Dentistry									1			1				2
Education												3	1		4	8
Forestry																0
G & PS																0
L & FS																0
Law																0
Medicine	1							1	1	3			1	1		8
Pharm															1	1
Sauder				1												1
Science				1						1	1					3
Total	2	0	2	3	0	1	0	1	2	4	2	4	2	1	4	

4.2.1.4.1 Questionnaire

In order to investigate the nature and substance of threshold concepts in SoTL (research question one), an open-ended questionnaire was distributed to past participants of the UBC SoTL Leadership Program to learn what they see as the challenging topics in the scholarship of teaching and learning. The questionnaire contained two categorizing questions (Faculty affiliation and UBC SoTL Leadership Program). The remaining questions were open-ended and focused on respondents' stuck places (Meyer & Land, 2003) in learning about SoTL. The questions, influenced by the work of Kandlbinder and Peseta (2009) and Kiley and Wisker (2009), asked respondents about the key concepts in SoTL, topics that helped them understand the key concepts, topics or themes that were challenging to learn, and strategies for overcoming these challenges (see Appendix A for the consent form and Appendix B for the questionnaire). This helped to identify the key concepts in SoTL and served as an organizing framework for interviews with past UBC SoTL Leadership Program participants. Thirty past graduates completed the questionnaire.

4.2.1.4.2 Semi-Structured Interviews

Of the 30 past graduates who completed the questionnaire, 20 agreed to take part in interviews. While I contacted all of them to schedule interviews, three were unable to participate due to conflicting schedules and two did not respond to my original or follow up emails. Two participants contacted me directly to volunteer after they had been unable to complete the questionnaire but wanted to take part in the study. As a result, 17 interviews were conducted with past graduates of the UBC SoTL Leadership Program between December 13, 2013 and February 26, 2014. The procedures and format of the interviews was similar to those conducted with the

2013-2014 cohort members, although the questionnaire responses formed the foundation of the interview questions. Fifteen of the interviews with past graduates were audio recorded and transcribed by a professional transcriptionist and reviewed by me (Lapadat & Lindsay, 1999). At the participants' request, two interviews were not recorded; however notes were taken throughout both of the interviews and post-interview researcher reflections were written.

In summary, qualitative research requires robust data collection techniques in order to achieve rich description. To that end, the data collection for this empirical study involves four different methods (questionnaire, participant observation of classroom sessions, semi-structured one-on-one interviews, and document analysis of ePortfolios and a researcher journal) and two different populations (2013-2014 cohort members and past graduates of the UBC SoTL Leadership Program).

4.3 Data Analysis

The following section explains how I engaged with and went about making sense of my compiled field notes, questionnaire responses, interview transcripts, and ePortfolio documents. As mentioned at the beginning of the chapter, although it may appear to be a unidirectional set of steps, in reality interacting with the data involved movement between the different levels of analysis, thus reflecting the iterative and cyclical nature of the interpretive phenomenological inquiry. My overall aim throughout the data analysis was to interpret the participants' experiences with a commitment to understanding their experiences from their perspective.

Beginning with the field notes from my participant observations and the questionnaire responses, I conducted a thematic analysis of the texts. Thematic analysis is an appropriate procedure within phenomenological inquiry as the themes are seen as "structures of experience"

(van Manen, 1997, p. 79) and these themes are understood as part of the process of identifying the units of meaning and discovering the themes that are present in the experience. It is also important to note that the division between data collection and analysis is not firmly delineated. Rather, there is an iterative process wherein units and themes emerged during the questionnaire and observations, and were investigated during the interview process. These new themes then influenced the collection of additional data.

4.3.1 Units of Meaning and Developing Themes

Data analysis was begun during the data collection phase in order to help focus further data collection. Following each data collection incident, I wrote a summary of the event, highlighting key words or statements about the participants' experiences that had stood out for me. As I collected additional data, I reflected on whether the participants had described something new about threshold concepts in SoTL, or whether their experience reinforced experiences that had already been shared in previous instances. As a result, during the data collection phase, I was already beginning to bring together and interpret my description of the key aspects of the lived experience of threshold concepts in SoTL. I continued to observe classroom sessions and interview additional participants in order to develop a more nuanced description of the complexity of the experience and any differences in experience that might have become apparent.

In this study, van Manen's (1997) second step was particularly important in framing the identification of themes of meaning. In the second step, van Manen outlines ways to produce descriptions of lived experience beginning with one's own experiences as they are possibly the "experiences of others" (van Manen, 1997, p. 54). Building a reflective awareness that "my

experiences could be our experiences" (van Manen, 1997, p. 57) was important in order to orient myself towards key indicators of the phenomenon. However, this also forced me to acknowledge the ways in which my lived experience differed from those of the study participants. This ongoing reflection was essential to conduct thematic analysis.

Thematic analysis offers an accessible and theoretically flexible approach to analyzing qualitative data (Boyatzis, 1998; Braun & Clark, 2006; Fereday & Muir-Cochrane, 2006; van Manen, 1997). Van Manen's (1997) third step outlines three methods for "mining meaning" (p. 86); the wholistic approach, the selective approach, or the detailed approach. The wholistic approach analyzes the text as a whole in order to capture the fundamental meaning. In the selective approach, the researcher listens to or reads the text several times and highlights statements and phrases that seem essential to the phenomenon. A detailed approach looks at every sentence in order to understand what that focused cluster reveals about the phenomenon. Through the process of writing and rewriting (step four) and considering the themes as parts of the whole (step six), these methods of isolating themes allow the researcher to reflect on the whole of the lived experience. All of these steps informed the data analysis in this study. My data analysis process was as follows.

The first method of data collection was the participant observation of classroom sessions. Each of the field note protocols was analyzed within 24 hours of the session. First, the field notes were reviewed, in a manner informed by van Manen's (1997) wholistic approach, for the key themes and the session was summarized with key words and phrases about participants' experiences that had stood out. Then meaningful and relevant exchanges were identified and I adopted van Manen's (1997) detailed approach to analyze those sections. For example, one classroom session early in the program focused on research methodologies and methods in

SoTL. This prompted a number of questions that suggested particular challenges to participants. The questionnaire responses were analyzed in a manner similar to the participant observations, first wholistically and then with a detailed approach. The analysis of the questionnaire and participant observations became the foundation of the interview questions.

Each interview was audio recorded and I took notes on the interview protocol sheet throughout. Immediately following the interviews, I wrote a reflection on the participant's description of the lived experience of threshold concepts in SoTL, their non-verbal communication, and the research process. Next, I listened to each interview recording all the way through and noted the main significance of the participant's narrative, consistent with the wholistic approach. The interviews were transcribed, 25 by a professional transcriptionist and the remainder by me. After each interview was transcribed, I listened to the audio recording again and added notes to the transcript, following van Manen's (1997) selective approach. I followed along with a hard copy of the transcript and highlighted, in colour, key units and previously identified significant statements. The reading of the transcript was supplemented with the corresponding journal notes from the original interview. For each participant, I compiled a list of significant statements and quotations from the interview. During the data analysis process, I became overwhelmed by the details (the parts) and therefore analyzed the interviews in chronological order in order to track the developing descriptions and maintain focus on the phenomenon as a whole.

Next, I began to group the key words, significant statements, and experiences across participants. This grouping required continual return to the transcripts and journal notes for clarification and context. These groupings were given titles (e.g., institutional culture) and became my key themes. A description of each theme was developed, although the descriptions

continued to evolve as I conducted additional interviews. As a final step, I went back to the data analysis summaries to ensure that all relevant experiences had been included in the description of a theme.

The ePortfolio documents provided supplementary sources of data. Document analysis procedures were informed by van Manen's (1997) wholistic approach with a detailed reading of particularly salient experiences. For example, each section of the ePortfolio was skimmed to capture the main significance, which was recorded in a summary sheet, and identify meaningful and relevant passages. Next, the highlighted passages were reread and analyzed with a detailed reading in order to explore what each "cluster reveal[ed] about the phenomenon or experience being described" (van Manen, 1997, p. 93). The text of the ePortfolio analysis complemented the classroom observations and interview methods, as comparisons between the field notes and written documents highlighted the reflections of participants who may have been more reticent to speak in class.

4.3.2 Overview of Analysis

In order to answer the research questions, as they related to threshold concepts in SoTL, it is important to consider both the global and unique findings, as described by the variety of participants in the program. Using van Manen's (1997) phenomenological analysis, numerous themes, or potential threshold concepts, emerged from examination of the educational leaders' lived experience of SoTL at UBC.

Each of the themes presented emerged out of the units of meaning and the iterative process of thematic development. Each of the themes is explored in light of the characteristics of threshold concepts discussed in Chapter Three. The characteristics of threshold concepts used in

this study are an attempt to provide quality evidence in support of these themes as threshold concepts.

Troublesomeness is often the first indicator of a threshold concept. As a result, it was the point of departure in the data collection process. For example, one of the questionnaires sent to past graduates asked, within the context of SoTL, "What topics or themes were challenging for you to learn? If none, please state that." As a result of the starting assumption of the data collection, all of these potential threshold concepts exhibit troublesome as a central aspect. However, it warrants noting that troublesomeness was experienced on a continuum with significant variation in intensity being articulated by participants.

The remaining characteristics were emergent as data analysis progressed, as their presence is not consistent across the themes. Generally, liminality was more frequently evidenced in the language, behaviour, and comments of the 2013-2014 cohort as they were often engaging with the field for the first time. Liminality was harder to identify in the interviews with the past graduates, as many of them were no longer in a liminal state when it comes to SoTL. A number of past graduates did note remembering how they felt discomfited and insecure while they experienced liminality. The characteristics of integration and reconstitution were subtle in the data. Often these characteristics would be articulated when, during the interviews with past graduates, I asked questions that probed for change between, before, and after the experience of learning SoTL. But, by nature, integration and reconstitution would be challenging for even the participants to recognize. The 2013-2014 cohort members most frequently identified the transformative before-and-after changes as they reflected on their experience during the follow-up interviews. A transformation in discourse was clearly recognizable throughout the participant observation of classroom sessions, interviews, and ePortfolio documents. The irreversibility of

threshold concept mastery was hard to separate from other aspects of transformation. It is for this reason that the characteristic of irreversibility was originally embedded within transformation. Boundedness was the most difficult threshold concept characteristic to substantiate during the data analysis, especially within a multidisciplinary group of participants. I now question boundedness as a characteristic of threshold concepts in SoTL, which will be discussed in greater detail in Chapter Six.

4.4 Issues of Trustworthiness

Designed as a phenomenological inquiry with educational leaders, the primary focus of this study was to explore their lived experience of threshold concepts in SoTL. Specific strategies and processes were incorporated into the research design to establish trustworthiness as a measure of the study's quality and the overall credibility and dependability (Lincoln & Guba, 1985). As there are no universal criteria to determine the trustworthiness of phenomenological research, Creswell (2013) suggests using Lincoln and Guba's (1985) criteria for evaluating the trustworthiness of a phenomenological inquiry: credibility, transferability, dependability, and confirmability.

Credibility refers to the faithfulness of the description of the phenomenon. In this study, the description of threshold concepts aligns closely with the participants' experiences, although I recognize that the findings represent a snapshot of the phenomenon as collected and interpreted by the participants and me. The credibility of this research is demonstrated, in part, through evidence (i.e., use of the participants' words or quotations from transcripts), as detailed substantiation from participants provides an insiders' view (Charmaz & Mitchell, 1997).

Transferability suggests the applicability of the results to other contexts. I provided

detailed descriptions of the phenomena, using the participants' words as much as possible. In this way, readers can make their own decision as to the relevance of the results outside of this study. As a result, I have restricted my discussion of the findings to the study's participants and I have tempered my generalizations when considering other educational leaders, other institutions, or other professional development programs.

Dependability refers to the extent to which another researcher can follow the analytical decisions made by the researcher (Lincoln & Guba, 1985). I have kept a detailed account of the steps in the research process (outlined in Appendix B). The detailed audit trail was used to describe the stages of data collection and analysis. This chapter outlines a detailed description of the methods and procedures adopted in order to allow other researchers to follow my process.

The assessment of confirmability refers to the grounding of the results in the data and "whether the inferences based on the data are logical" (Lincoln & Guba, 1985, p. 323). Heeding the advice of Tracy (2010), I attempted to provide a full and open account of the study's methods and results, as articulated in this chapter, Chapter Five, and Chapter Six. This was done by clearly articulating aspects of the study such as acknowledgement of my subjectivity, justification of the design, steps taken to collect data, description of data analysis methods, and the presentation of results in a transparent and trustworthy way. Through transparency in ethics, transcription, and data analysis (Tracy, 2010), this project sincerely reflects the focus on the participants' lived experience of threshold concepts in SoTL.

The study likewise attempts to increase the validity and reliability of the data collection and analysis via the practice of bracketing (Creswell, 2013; Wertz, Charmaz, McMullen, Josselson, Anderson & McSpadden, 2011). Although it was challenging, as I was intricately involved in the UBC SoTL Leadership Program, putting aside my personal knowledge and

assumptions was important in order to set aside my lived experience in favour of the participants' points of view.

For the study to portray the fullness of the lived experience of threshold concepts in SoTL, the inquiry included one cohort through their whole program, but also the experiences of past graduates. The two participant groups served to place the lived experience within the context of a research-intensive university and the sixteen-year history of the UBC SoTL Leadership Program. Throughout data collection, developing themes were shared with participants, with exclamations of, "I hadn't thought of it that way, but yes." In order to triangulate for validity, expert checks were periodically included at key points. The UBC SoTL Leadership Program instructors, both 3M Teaching Fellows and published in the field of SoTL, are recognized as experts. Earliest discoveries were shared with them once a month, during or after each classroom session. Preliminary findings were presented at two conferences (Webb, 2014a; 2014b) and garnered significant audience support. The originality of this research offers fresh and new insights into the lived experience of educational leaders as they navigate threshold concepts in SoTL. As discussed in section 1.2, a phenomenological inquiry into threshold concepts in SoTL provides new knowledge of the experience of educational leaders in the UBC SoTL Leadership Program and the type of program that they want and need.

4.5 Ethical Considerations

The following ethical considerations were taken into account in order to treat the participants with respect, dignity, and care throughout the study. Obtaining informed consent, maintaining confidentiality, and mitigating conflict of interest were consciously, and carefully, built into the study design in order to minimize harm or risk to the participants. Before beginning

the study, approval was obtained through the UBC Behavioural Research Ethics Board to ensure that the study met institutional ethical guidelines. Prior to their involvement, participants were introduced to the study's parameters and intent, as well as a description of their involvement and potential risks. Informed consent could be problematic, due to the open-ended nature of the interview and the on-going nature of the research. At the outset of the participant's involvement in the study, written consent was obtained. As well, on-going process consent (Smythe & Murray, 2000) was sought throughout the research study. As participants' involvement stretched over nine months, privacy and anonymity may have become complicated, as outside parties may have figured into the interview. The on-going process consent allowed the participant to retain ownership of their data throughout the study. In order to protect the confidentiality and privacy of the study participants, a number coding system was used and references to their courses, colleagues, and specific areas of expertise were removed. The challenge of my multiple roles again highlights the insider/outsider nature of SoTL research. It is invaluable to understand the language and culture of the participants within the learning culture. Yet, it is important for me to be cognizant of taking liberties and making assumptions based on my familiarity with the participants, especially as the instructor and researcher may be the same person. Participants make themselves vulnerable by sharing stories about their lives and work, especially as I am a member of the UBC SoTL Leadership Program instructional team. It is imperative to use ethical procedures to gain trust, establish a rapport, and collect information that is relevant to the research project. The ethical goals of this research were informed, above all else, by a caring attitude towards others, especially participants. Thinking of research as collaboration, a relational ethic seeks to focus on how we treat others, guided by the quality and character of our relationships as well as the material (Flinders, 1992; Gunzenhauser, 2006). In this study, my

ongoing relationship with the UBC SoTL Leadership Program offers a unique, intimate perspective that might not be possible for someone less familiar with the setting.

4.5.1 Limitations

The limitations of this study stem from three main areas: the localized institution, the study population, and the chosen methodology and methods. The first consideration is that all but two of the participants were actively employed at UBC at the time of data collection, even those who completed the UBC SoTL Leadership Program fifteen years previous. Since the data collection more of the participants have left UBC. As well, it may be worth noting that during the first decade, the UBC SoTL Leadership program focused on SoTL. At the time, the cohort was made up of Deans' nominees and the remaining spots open to UBC faculty members. However, since 2008 the cohort was entirely of institution-level/Faculty-level educational leaders nominated by their Deans. It is possible that the shifted program focus may have affected the participants' experience. Although measures were taken to maximize credibility and dependability, different investigators may have offered different interpretations than those presented here. It is inevitable that the study's findings are influenced by the contextual location of the researcher as a member of the instructional team.

Another factor to consider is selection bias. As the study population were volunteers, it is possible that the participants who desired to participate were somehow different that those who elected not to. Despite two invitations to participate, many of the past graduates of the UBC SoTL Leadership Program did not complete the questionnaire. As a result, there are three cohorts of past graduates, although all three of the cohorts were from more than a decade ago, and there are four Faculties (Forestry, Graduate & Post Doctoral Studies, Land & Food Systems, and Law)

who are not included in the responses. There were two participants (from Medicine and Dentistry) who volunteered for an interview without completing the questionnaire.

A phenomenological research approach, based predominantly on interviews, also presents limitations. First, the methodology depends on the participants being able to clearly articulate their lived experience. As a result, the findings and conclusions are highly influenced by the population of the study and the specific time frame of the data collection. This means that, in order to focus on a rich description of lived experience, the scope of the study may miss influential factors that led up to the experience or the concomitant factors that are associated with the experience. As well, the interview form has limitations. While reasonable attempts were made to focus the interview in the lived experience and the characteristics of threshold concepts, if is difficult to determine whether a participant was troubled by core concepts or particular threshold concepts.

4.6 Summary

D'Andrea (2006) states that higher education research should aim to improve practice through description, analysis, and new conceptualizations. Using interpretive phenomenology as the research approach in this study seeks to explore the meanings in our everyday experience (van Manen, 1997) of threshold concepts in SoTL. In the context of this study, meaning making requires engaging educational leaders to co-construct the essence of their experience in the UBC SoTL Leadership Program. As there are a variety of potential interpretations, an interpretive phenomenological approach was adopted in hopes of gaining a rich understanding of the lived experience and revealing traits that are currently unknown. The findings of the study will be outlined in the next chapter.

Chapter 5: Results

The purpose of this study was to explore the lived experience of educational leaders as they navigate threshold concepts in SoTL. The two questions that guided this research were: ***For institution-level/Faculty-level educational leaders at a Canadian research-intensive university, what is the nature and substance of threshold concepts in SoTL?*** and ***what enhances or constrains their ability to navigate threshold concepts in SoTL?*** An interpretive phenomenological approach was adopted as the methodology of inquiry. Thirteen members of the 2013-2014 UBC SoTL Leadership Program and 32 past graduates of the program participated in the study and shared their lived experience of engaging in SoTL.

Throughout the qualitative analysis, every effort was made to reveal the story that can be told by the data and to minimize the bias that would lead to the story that a researcher would like to tell, although, in this study, the two stories are highly congruent. In addition, those aspects of the data that reflect differences between current and past graduates emphasis are described. The educational leaders' lived experience of threshold concepts in SoTL was organized into the following themes: **the nature of SoTL, conceptions of research, subjectivity, institutional culture, teaching as scholarship, studentness, dispositions of a SoTL scholar,** and **boundary crossing**. Each theme is described below, using the participants' words to illustrate their experience. The themes have not been listed in any particular order. The factors that enhance and constrain educational leaders' ability to navigate threshold concepts in SoTL provide important depth to the understanding of their lived experience. The chapter closes by presenting a summary of the key findings.

5.1 Potential Threshold Concepts in SoTL

Research question one addressed the purpose of the study directly by asking "***For institution-level/Faculty-level educational leaders at a Canadian research-intensive university, what is the nature and substance of threshold concepts in SoTL?"*** Eight themes, emerging from the data analysis as potential threshold concepts in SoTL, will be discussed.

5.1.1 The Nature of SoTL

The nature of SoTL refers to the character or qualities of the field. This definition served as a starting point for my interactions with the participants; "what does SoTL mean to you?" From the questionnaire responses, three key characteristics emerged; SoTL means understanding personal values and beliefs about teaching and learning, SoTL provides definitions of the scholarship of teaching and learning, and SoTL defines the attributes of a SoTL scholar (including pedagogical practice and curricular investigations). Cohort members' corroboration was not always similar or succinct, but pervasive throughout the field notes. The key concepts in SoTL, discussed in this section, represent the basics of a new field and while they may exhibit some aspect of troublesomeness or transformation, I do not consider them to be threshold concepts. They did, however, inform the interviews and subsequent development of themes.

As a respondent from the Faculty of Science articulated, having a framework for learning was crucial (QR #8)[4]. SoTL provides a guide for how to develop the self in teaching (QR #2); "a

[4] Each participant was assigned a pseudonym. Past graduates were given numbers that corresponded to their questionnaire response (i.e., QR #8). Members of the 2013-2014 cohort were given descriptors based on their faculty affiliation (i.e., Med 2).

structure … it's really given a more systematic … way of looking at things"[5] (QR #13, p. 1). Included in this description of a framework for learning is the idea, presented by one past graduate, that speaking in literature informed ways, provides heft to an educational argument (QR #31).

It was noted that the epistemological culture of a department or faculty often underpins the comments and questions from a cohort member (FN 3). As a result, for many participants, the process of developing and articulating personal values and beliefs about teaching and learning was an all-encompassing pursuit. Articulating a teaching philosophy and understanding theories on learning was noted as being central to these personal beliefs. Being responsive to students and their learning styles was cited by 23 of 30 respondents. Participants used language like "student-centered learning" (QR #26), "active learning" (QR #19; 22), and "evidence based development of teaching materials and strategies" (QR #11) to describe key SoTL concepts.

SoTL research leads to an improvement in the quality of pedagogical and curricular practice (FN 5). A cohort member from the Faculty of Forestry was open about the classroom challenges that they were experiencing. This willingness to see the classroom as a public space, where inquiry can happen, was supported by a broad-minded approach to research. Recognizing that SoTL is collaborative practice, their capstone presentation sought out input from multi-disciplinary colleagues on research design that highlights the value, impact, and increasing participation amongst peers.

An understanding of educational research is important because of the context (Kanuka, 2011; Svinicki, 2012). However, participants consistently said that the more that they learned

[5] All quotations from participants are verbatim.

about the field of SoTL, the more they saw support for the things that they were already doing. The identification and application of key concepts in SoTL served to "reaffirm what I do as a medical educator" (Med 2, #1, p. 2) and showed that they were on track. In fact, the language of SoTL served to support them in advocating for their interest in doing work in the educative practices of the discipline.

The definition of SoTL and understanding of how and why to do research in teaching and learning was a complex and evolving conceptualization. Initially, SoTL was seen as inquiry into teaching and learning. As one participant said, "it's based on research and evidence and that we actually look at outcomes. Just as we do in research, if we approach teaching the same way" (For 1, #1, p. 12). An interesting change took place between the first and follow up interviews. In the follow up interviews, participants had a more comprehensive, complex, and nuanced understanding of scholarship in teaching and learning. By the end of the program, I noticed a discursive transformation as participants defined SoTL using key terms such as; "systematic inquiry" (Eng 1, #1; QR #4; QR #22), "evidence based" (For 1, #2) / "dissemination" (For 1, #2), "research design" (Eng 1, #1), "methodology" (Eng 1, #1) and "literature informed, empirical research and dissemination". The inclusion of the dissemination piece brought participants' conceptions of SoTL more in line with Glassick, Huber, and Maeroff's (1997) essential tenets of SoTL (i.e., clear goals, adequate preparation, appropriate methods, significant results, effective presentation, reflective critique).

5.1.2 Conceptions of Research

The transformative nature of threshold concepts involves epistemological and ontological shifts as well as cognitive ones. Learning to think within a discipline is characteristic of the

transformative agenda, which demands that learners rework their prior knowledge in light of the new concept. As well, threshold concepts often challenge a learner's existing knowledge or beliefs.

This theme, which I call conceptions of research, includes how educational leaders envision not just conducting research, but also their approach to research. Their definition of scholarly research influences the research questions they ask and what they consider valid data collection and analysis for study.

Evidence of this potential threshold concept was articulated through specific reference to language, readings, research projects, and feelings of insecurity (referred to as 'imposter syndrome'). In many cases, participants spoke of new research methodologies and methods that helped them move from intuitive knowledge through the "complete sea changes" into social science research. The "exposure to the academic side" of teaching and learning brought with it a new discourse of SoTL. Almost all of the participants highlighted their unfamiliarity with the new language as a major barrier to engaging in SoTL research. However, once the educational leaders in the study mastered a new language, they became cultural insiders and are able to translate for colleagues the "jargon of the expert."

The driving force behind a shifted conception of research included acknowledgement of participants' epistemology and ontology as drivers for their approaches to research. A framework for how people learn is crucial as SoTL research. This acknowledgement of their vantage point opened reflection, not just on teaching and learning, but on the development and design of such research. The long-standing enculturation into disciplines (i.e., ritual knowledge [Perkins, 1999]) renders this threshold concept highly troublesome. While a few participants struggled with the tension between disciplinary expectations and the conventions of SoTL research, once they

acknowledged the validity of alternate methods of scholarship within different disciplines, "giving teaching the same amount of thought and rigor that they give the rest of the research they do" (Med 1, #1, pp. 10/11), then they began to move through the liminal space.

Like many disciplinary scholars, the participants in this study are steeped in particular disciplinary cultures. Disciplinary training drives comfort with research (Sci 2, #1); "for someone who is a bench scientist, this is so different for them" (Med 1, #1, p. 2) and as a result, for some, the discourse, paradigms, and methodologies of educational research "do not have meaning in my world" (QR #19, p. 2). For a participant from Medicine, the shifting conception of scholarly research meant that quantitatively measurable results are comfortable for him. However, contrary to expectation, the majority of participants from the Faculties of Science and Medicine noted that their capstone projects and presentations allowed them to push outside of their comfort zone, using interviews, documents, and classroom observations as data collection methods. In this way, SoTL research was a "complete sea change" (QR #8, p. 3).

Qualitative research was wholly unfamiliar (QR #2), but many have made initial forays into the new area. Those that were more familiar with research in Education noted that many participants do not have the tools to conduct research in an educative frame (QR #4). "Even to call it empirical research … I would never have called it that" (QR #14, p. 6). Many mentioned the "need to brush up on qualitative research … conceptually I understand. But when you are conducting it as research, you need to understand about qualitative research methodologies" (Eng 1, #1, p. 5). Even those past graduates who have transitioned into educational research still struggle with social science research (QR #8), suggesting that it took three to five years to be familiar with qualitative methodologies and methods. Yet, one past graduate from the Faculty of Medicine noted that conducting the capstone project was transformative as it was counter to his

disciplinary understanding of what research looks like (QR #32). Another participant succinctly shared the tension in their understanding of scholarship in teaching and learning.

> We assume that our knowledge from education just comes from intuition, this gut feeling, based on the experiences that I've had. This is what works, and we go with that. Yet in research, we try to ignore that intuition. We try to study and systematically observe and discuss and gather knowledge, and then use that to form an opinion. So when it comes to education, we throw the scientific method right out the window. (QR #13, pg. 3)

However, for the 2013-2014 cohort or those past graduates who had not been involved in educational research since their graduation, varied conceptions of SoTL research were central to many of the interviews. While all participants were familiar with the disciplinary definitions and constructs of research, they were at varying levels of comfort and familiarity with the authenticity of SoTL research.

This "exposure to the academic side" of teaching and learning (QR #9) also encouraged a conversation about the definition of quality scholarship across all disciplines, "as in any research, there needs to be a clear focus" (For 1, #1, p. 10). One past graduate most articulately encapsulated this definition, SoTL research

> has to include an element of research, an element of investigating a new idea or an uncertainty in what you do. It has to involve some degree of reflective practice in the sense that any scientist is going to reflect on results and kind of figure out where it's going, and it have to include some degree of dissemination. Whether its publication or whether it isn't

> internal within the institution or whether it's external may be less key.
>
> (QR #8, pg. 1)

This quote demonstrates that the participants' definition of SoTL scholarship can be commensurate with their understandings of disciplinary scholarship (QR #22). One participant from the 2013-2014 cohort aligned the design of his SoTL research with his disciplinary culture, despite being challenged by cohort members during his presentation on the ethics of a control group and an experimental group within a single graduate class. In another interview, a participant from the Faculty of Medicine suggested that it was necessary for her to redefine what a research study is in order to move forward with her 'do-able' study. (Med 4, #1). However, once the connection was made between uncertainty in her professional practice and uncertainty in qualitative research in SoTL, it was easier for her to navigate SoTL scholarship with more confidence. For these two participants, the epistemological and ontological shifts were evidenced by the shift from intervention to exploratory research question and the use of narrative inquiry in the capstone project and presentation.

It was interesting to note how cohort participants' conception of research changed from the first interview to the second. In the beginning, those who came from interdisciplinary fields (as one participant described Life Sciences) or the social sciences were more comfortable with the paradigmatic shifts that are required with SoTL research. For example, one participant noted methodology as a key concept in the field of SoTL. Yet, in the follow up interview, she spoke about the challenges of measuring the un-measurable (i.e., impacts, qualitative change) through their traditional understanding of research and how they had needed to shift their understanding of what research can look like (Sci 3, #2).

This recognition of differing conceptions of research meant that it was not as simple as "taking the skills that you've got elsewhere, put them on this and look, it actually kind of works" (Med 1, #1, p. 11). One 2013-2014 cohort participant suggested that exposure to SoTL reinforced ways to learn the right kind of borrowing from other disciplines, specifically education, "You have a research question and you're going to use the methods that suit your research question" (Med 3, #1, p. 4). However, a shifting understanding of how to design and conduct meaningful, manageable, do-able research precluded this belief. Another participant expressed the same understanding. While they needed support in order to develop research questions, once they were articulated, they felt that they had the tools to conduct the work (Med 2, #2). The key was bringing the focus on the question, and crafting one that was narrow enough.

The identification of epistemological and ontological shifts was more prevalent in the interviews with past graduates of the UBC SoTL Leadership Program. One participant from the Faculty of Education who had recently completed the program noted, "I had really changed my thinking around myself and what I was doing" (QR #14, p. 8) and another participant said that a "light went on in my head" (QR #30, p. 12). However, two past graduates, one from an earlier cohort and the other from a recent cohort, specifically noted that they were unaware of changes at the time, but looking back things are different. "The a-ha moments tend to be kind of at the micro level … a retrieval of something I thought I had learned a long time ago" (QR #24, p. 6). In this way, some of the learning has become internalized and becomes second nature.

The educational leaders who are able to master this threshold concept do not feel bounded by the ways of thinking and practicing within their discipline. In fact, crossing this threshold would indicate that they are able to recognize the tension between their disciplinary expectations of research and SoTL research, acknowledge the validity of alternative

methodologies of research used in SoTL as part of the liminal experience, and be epistemologically and ontologically transformed as they become insiders connected to a different research community.

5.1.3 Subjectivity

The interplay of researcher and inquiry is often taken for granted in both quantitative and qualitative research. Rarely can educational research be a simple matter of record keeping and summary. Acknowledging subjectivity demonstrates the way that a researcher's self intertwines with her understanding of the research investigation. The researcher's orientation cannot help but have ramifications for the research procedures and way participants are thought of. Researchers need to be aware of how their subjectivity may be shaping their SoTL inquiry, data collection and analysis, and the outcomes (Peshkin, 1988; 2000).

Acknowledgement of subjectivity emerged as a theme out of an influential interview with a participant who has many years of experience studying teaching and learning as part of his position within the Faculty of Arts. Drawing on the concept of the subject position (Davies & Harré, 1990), a subjective vantage point is the position that is taken up by individuals as they negotiate their shifting identities within a location or situation. Davies and Harré (1990) suggest that,

> Once having taken up a particular position as one's own, a person inevitably sees the world from the vantage point of that position and in terms of the particular images, metaphors, storylines and concepts which are made relevant within the particular discursive practice in which they are positioned. (p. 46)

Inherent in the acknowledgement of subjectivity are the threshold concept characteristics of liminality through shifting identities and the transformation that occurs through the integration and reconstitution within a particular perspective.

Understanding that methodology is more than just a collection of methods and that it theoretically underpins the way that an educational leader approaches research was a conceptual challenge for many cohort members. Throughout the interviews with past graduates, they articulated the challenge of taking on a new way of thinking of research. The acknowledgement of subjectivity, as a threshold concept, requires that these educational leaders acknowledge their epistemology and ontology as drivers for how they approach research and then design research that is commensurate with those beliefs (FN1, FN2). In some disciplinary cultures, scholars use method and methodology interchangeably; "it's sort of muddy thinking on our part" (QR #24, p. 7). The method versus methodology discussion, which was a key aspect of one interview with a past graduate, highlighted a lack of acknowledgement of an approach to knowledge or research evident in many of the cohort member's capstone projects and presentations.

For many of the participants, questioning their approach to research was both troublesome and liminal as it calls into question any previous pedagogical or curricular inquiry that they had conducted. However, it also bears noting that some of the participants were not challenged by educational research paradigms. There were two reasons for this. Either they were familiar with the paradigms and conventions of social science research or they had not questioned their conceptions of research as they moved into the field of SoTL. They felt comfortable using a familiar research toolkit, but did recognize that they were deeply enculturated into comfortable data gathering techniques, noting that they prefer "the usual experimental design and approaches and having seen a lot from the [name removed] group where they really take a very science-y,

experimental, evidence-based approach to the analysis" (Sci 1, #1, p. 5).

Tied with shifting conceptions of research, acknowledgement of subjectivity is a threshold concept because once participants started to question their perceived understanding of research within SoTL then the daunting feeling of oscillation between confidence and floundering became pervasive. As some participants moved from disciplinary cultures and assumptions into SoTL scholarship, it became important to shift their subjectivity in order to recognize the cultural conventions of the field of educational research. By definition, this threshold concept implies a movement away from understanding bounded by disciplinary conceptions.

5.1.4 Institutional Culture

Institutional culture, as a threshold concept in SoTL, concerns the tension surrounding the demands, both real and implied, of a position at a Canadian research-intensive university. All of the participants described some level of institutional factors as influencing their involvement in SoTL. Importantly, all of the participants expressed an individual commitment to teaching and learning, thus it was troublesome when they encountered barriers, which came before being able to attend to areas of personal interest.

In the interviews, it became clear that while many participants saw teaching as part of their job description, involvement in learning SoTL extended their conception of professional responsibility to include research in teaching and learning. Similarly, the tension between disciplinary culture norms, specialized jargon, unfamiliarity with social science research methods, and human subjects ethics review protocols proved to be a challenge for the scholarship of teaching and learning (Hubball et al., 2010). Traditional disciplinary silos and the

responsibilities of an academic position at a research-intensive university were explicitly identified as barriers. Nearly half of the participants cited challenges balancing disciplinary responsibilities with the demands of SoTL research as a reason that they are or will no longer be active in educational research. For example, some complained that allocating the time and intellectual space to SoTL was a major barrier. Unfortunately, one past graduate noted that the program had planted a seed although it still hasn't has time to grow as her professional responsibilities are too great (QR #2). Part of this barrier is the time it takes to shift research paradigms and to learn new ways of conducting research. It also has to do with what is seen to be of value within the institutional culture. Participants are attempting to balance the pragmatic details of their positions with a new interest, responsibility, or passion project.

Described as "two lonely planets" (Sci 3, #1, p. 7), teaching and research are at odds. A lack of value placed on research on teaching and learning within some departments and faculties is seen as an insurmountable barrier. For example, one participant noted that there are two camps in the Faculty of Science; those that embrace educational research and those that dismiss the results as "unscientific" (Sci 2, #1, p. 17). Comments such as, "There's definitely one that's viewed as better than the other" (Sci 3, #1, p. 7) demonstrate that the institutional culture was an important consideration for the participants. Interestingly, this participant went on to explain that she no longer engaged in this debate as she had decided that her work in teaching and learning was of utmost importance to her.

However, two other participants cited a hierarchical divide between faculty who teach and those who are able to 'buy out' their teaching time as creating an institutional culture that made some powerful and left others powerless. Over half of the participants cited professional requirements as barriers to ongoing participation in SoTL, while one participant cited internal

politics as key challenges for ongoing research and improvement in teaching and learning. While the individual faculty members may agree on the principles of SoTL research, collectively they are fighting for territory and funding. In one faculty, a past graduate explained, "No one is expecting our world-famous [discipline experts] and so forth to carry out educational research" (QR #8, p. 1); for them the emphasis was on scholarly teaching over scholarship. It was too challenging to be at the cutting edge of their discipline and SoTL (Med 1, #1). Therefore, discipline experts benefited from their engagement with a few teaching and learning experts but they should not be required to do research in teaching and learning themselves.

The separation of individual scholarship and SoTL Leadership is reinforced through the guidelines for promotion and tenure as enacted within faculties and departments. For example, comments included, "Why it took so long? First of all, I think I needed to get tenured" (Eng 1, #1, p. 3). In the case of this individual, she felt that there was a cultural disconnect between SoTL and education in her discipline. Traditional conceptions of merit and promotion at a research-intensive university act as a barrier. One past graduate noted, "The system doesn't reward bettering your skills that way" (QR #25, p. 14), suggesting that professional development in educational leadership was not recognized within their institutional culture. As a result, educational leaders are publishing for the purpose of career advancement rather than for the advancement of the field (QR #32). When I asked one 2013-2014 cohort member about the changes to the UBC guidelines that supported SoTL publications as equally meritorious to disciplinary research, he responded, "Good luck with that" (Med 1, #2). Yet, there was perceived value of SoTL expertise, within other faculties, as participants move through promotion and tenure.

Institutional culture was experienced in different ways, with some participants being in a

liminal state at the time of the interview, and others who had come to terms with navigating the challenge. For one of the past graduates from the Faculty of Medicine, it was necessary to have teaching experience as well as program and institutional knowledge in order to engage fully in the program. As a result, she felt that she was better able to handle many of the institutional challenges because being an educational leader requires an understanding of context as well as SoTL knowledge. A 2013-2014 cohort member suggested that her initial work in SoTL helped her to keep up with changes in the field. As their accrediting body is moving to outcome-based assessment, this participant felt that her understanding of teaching and learning research would help her to keep pace. Although the opposite was true for two participants (Sci 2 & QR #13), who noticed departmental curriculum changes being implemented without comprehension of the relevant studies in the area or constructive alignment of the courses. One participant noted, "Just because you have an opinion doesn't necessarily mean that you have the knowledge" to do a curriculum review (QR #13, p. 2).

One 2013-2014 cohort participant from the Faculty of Engineering talked specifically about how her practice had been transformed by her experience learning SoTL. Being able to use the language of SoTL in her publications, but also translating for her colleagues, gave her the confidence to make this her area of research and scholarship. She had moved out of disciplinary research and into work on teaching and learning in Engineering. She also felt validated now that UBC had created a Professor of Teaching stream.

While a few felt that they had the confidence to offer something unique to their department, school, or faculty, the lack of grants available to support SoTL research was not sufficient to warrant the time necessary. Three of the participants explicitly commented that a lack of financial support prevented them from being able to incorporate SoTL into their research

agenda, “There is no money and there’s no time” (QR #31, p. 20). There was a strong belief among these participants that there was a dire need for increased resources to support those that want to conduct rigorous educational scholarship.

Similarly, busy pre-tenure faculty members, active in establishing a research agenda, generating grant money, or sitting on a variety of committees, cited professional responsibilities as factors that allowed limited time for research in teaching and learning. One participant from the Faculty of Science acknowledged that as a pre-tenure faculty member, any future involvement in program co-ordination or curriculum work would be precluded by the pursuit of tenure, even for those working toward the Professor of Teaching. For those already employed on the tenure track, ongoing engagement in SoTL research “would require a pretty big shift for me in terms of what I value and what I place focus on” (Med 1, #1, p. 15). As a result, there is little incentive, beyond the personal, to become involved in teaching and learning projects.

Educational leaders are thus presented with a myriad of obstacles in the institutional culture that could hinder their participation in SoTL research. The cumulative effect of these obstacles originated from disciplinary and perceived professional responsibilities, which many viewed as largely beyond their control. The locus of control was viewed to be the institutional culture of a research-intensive university.

Institutional culture is a threshold concept bounded by disciplinary and institutional constraints. The perceived and real influences of a position at a Canadian research-intensive university meant that few participants appeared to have moved through this threshold despite the fact that many were troubled that there were continued barriers to their understanding of their professional responsibility to teaching and learning at a RIU. At the time of the interviews, almost all of the participants were in the liminal space, wrestling with personal beliefs and

professional demands.

5.1.5 Teaching as Scholarship

Scholarship means the ability to discover, integrate, and apply knowledge and inspire future scholars in the classroom (Boyer, 1990). Glassick et al.'s (1997) established tenets of SoTL (i.e., clear goals, adequate preparation, appropriate methods, significant results, effective presentation, reflective critique) demonstrate the importance of rigorous scholarship disseminated in peer-reviewed contexts. The ability to use appropriate forums for communicating SoTL research in order to make teaching public to the campus and wider community (Felten, 2013; Hutchings et al., 2011) is an important, but challenging, aspect of the work. Due to the intensive nature of this type of scholarship, very few scholars are actually working at this level.

This theme draws upon the work of Bunnell and Bernstein (2012) as they identified two threshold concepts in scholarly teaching, teaching as an inquiry based process and teaching as a public act. Bunnell and Bernstein's (2012) threshold concepts in scholarly teaching act as a jumping off point for the potential threshold concepts in this study as when the context of the inquiry is changed from scholarly teaching to SoTL leadership, the potential threshold concepts change as well. The threshold concept of teaching as a public act is defined as the willingness to make teaching scholarship that can be opened to peer review. I see this as a key concept in understanding SoTL. However, the threshold lies in the fact that educational leaders have to recognize that the classroom, curriculum, program, or institution can be sites of scholarship with rigor equal to that demanded within their discipline.

Reflecting upon and sharing challenges with others in the UBC SoTL Leadership program sessions provided a venue to share ideas and try new things, but also implicitly made the classroom a public place open to inquiry. However, the exposing of challenges was troublesome for participants in two ways. First, they had to acknowledge that research into the educative practices of their discipline was worthy scholarship. Second, they had to be willing to make their classroom, curriculum, program, or institution into a lab.

Research into teaching and learning often requires inquiry into the self as an instructor, which exposes and opens up faults, problems, and challenges in classroom practice. In addition, as a result of teaching being a very personal act (Med 3, #2), not all institutional cultures have deemed it worthy of recognized scholarship (QR #13; 19). This lack of recognition created a challenge for many study participants. They were interested and engaged in pedagogical or curricular research and yet they felt alone within their departments, schools, and faculties.

Connecting with the influence of institutional culture, one participant brought forward this challenge: Is it possible that conducting a study to investigate their own practice or their program could be problematic for early career faculty? This is an astute observation. In a position as junior faculty, negotiating their way through the institutional culture, the identification and dissemination of issues could be contentious, especially when others may have tried and failed at similar projects. Engagement in this type of research may place educational leaders, regardless of their tenure, in a liminal state. Navigating the pressures of an institutional culture could be connected with the decision to conduct or avoid research in teaching.

Participants frequently talked about the importance of learning that they were not alone in their teaching and learning challenges. The SoTL literature was cited as an important ‘discovery.’ Once participants recognized that others had similar research interests to them, and

could articulate their search terms in SoTL discourse, they were able the find relevant research. This discovery also transformed one participant's understanding of how she could contribute to the field. She realized that others in her field may be interested in what she was doing and would want to read an article she had written (Med 3, #1).

As a theme, teaching as scholarship is supported by research in scholarly teaching (Bunnell & Bernstein, 2012). As many of the educational leaders in this study were already scholarly teachers, that may explain why some did not find it troublesome to explore their teaching and learning context as the site of their inquiry. However, the fact that the inquiry may be of interest to others and is worthy of dissemination does appear to be transformative to a few. As well, this theme does not appear to be bounded within particular concepts or an area of knowledge. In fact, it was exhibited in multiple disciplines.

5.1.6 Studentness

An interesting concept, raised by one participant in the questionnaire, was the novice to expert continuum. Based on the Dreyfus model of skill acquisition (Dreyfus & Dreyfus, 1980), the novice to expert continuum is a model of how learners acquire skills, in five stages, through instruction and practice. As the educational leaders in this study engaged in learning SoTL, they were able to navigate the continuum (Novice, Advanced Beginner, Competent, Proficient, Expert) (Eraut, 1994) with varying levels of fluidity. While the participants cognitively understand the steps in developing expertise, many were troubled by their placement as novices, especially when they are experts in their respective fields.

The threshold concept of studentness connects the novice to expert continuum with Glynnis Cousin's (2012) discussion of "studenthood". In her invited lecture at the Fourth

Biennial Threshold Concepts Conference, Cousin focuses on the reciprocal relationship between student and instructor as an important factor in the navigation of liminality in threshold concepts. In this relationship, learning to feel like a student includes choosing to join in to the activities and seeing instructors as significant others who support learners. For the participants in this study, navigating the threshold concept of studentness meant not only choosing to take on "studenthood" (Cousin, 2012), but also acknowledging their relative novice position within the field of SoTL.

Troublesomeness was frequently exhibited through the use of emotionally laden language. Participants felt nervous, overwhelmed, and apprehensive as they entered the field of SoTL. The emotional component of the learning journey was explicitly discussed in five of the interviews. One cohort member spoke about feeling daunted by the SoTL research. As a novice, she felt that she did not know what questions to ask, but gained confidence when other members of the cohort, instructors, and the topics of inquiry validated her questions. Another participant cited the fear of losing face in front of colleagues as a reason why cohort members might be loathe to discuss their challenges in the field. She suggested that having to look introspectively challenged the perceived self-image of the discipline expert; "there is some resistance of looking at our own teaching and how that means for our image" (Med 3, #1, p. 5). This participant noted that the professional requirements of an academic position and the potential turmoil of self-examination through SoTL scholarship is "too heavy" (Med 3, #1). The anxiety of exposing personal or professional challenging may explain why some participants were reticent to speak in front of the group, they may expose their ignorance. There are many reasons people did not talk in the class – lazy, shy, language barriers, they are not invested in the experience – however, more than half of the participants cited feeling some variation of imposter syndrome as they became more

familiar with the ways of thinking and practicing in SoTL.

The oscillation between expertise in a discipline and being a novice in SoTL was an important indicator of liminality. Two cohort participants discussed their experience of taking on "studenthood" (Cousin, 2012). One cohort member noted that she, and she suggested others in the cohort "want to shine in front of your instructor" (Med 3, #1, p. 9). Another cohort member, a former international student, suggested that her familiarity with being a "fish out of water" made it easier to go through the tough adjustment that was part of both her disciplinary and SoTL training. She was used to not understanding the language and cultural references. One past graduate noted that navigating the liminal was easier if you are "in the groove of being a learner" (QR #17). He had recently completed a graduate degree and felt that his experience of being a learner in his field actually helped his acceptance of being a novice in SoTL as well.

Not only did the recognition of studentness help educational leaders' approach to learning a new field, but they also spoke of an a-ha moment where they developed an appreciation for the challenges their students face (Med 3; Sci 2). Respondents used a continuum of expertise when they talked to their students about a learning journey and the metaphor of a learning journey proved a useful description when working with educational leaders to help conceptualize the challenges of the learning process; adding a "new domain of expertise to the capabilities of people who are already expert in something" (QR #8). This acknowledgement of expert blindness fed into participants' articulation of the importance of reflective practice.

The requirements of understanding the ways of thinking and practicing in a field, the discourse and conventions, are greatest in the literature of the field. Therefore, I feel that learning to publish in the field of SoTL demonstrates transformation. Two past graduates spoke explicitly about their attempts at dissemination in SoTL. "I'm still nervous about it. I still find that I'm not

good at it" (QR #25, p. 6), but they were confident enough to engage and were open to the feedback from peer reviewers as an opportunity to make their scholarship better.

Taking on the mantle of studentness and recognizing a continuum of expertise helped to relieve the pressure of having to initially and fully understand the nuances of the SoTL field from educational leaders. While traversing this particular threshold may be troublesome and emotionally laden, the recognition of studentness may facilitate movement through the liminal space and transformation. This threshold concept is not bounded by a particular disciplinary culture, but was acknowledged by educational leaders across disciplines.

5.1.7 Disposition of a SoTL Scholar

The disposition of a SoTL scholar coalesced around four key characteristics: curiosity, passion for teaching and care for students, strong self-concept, and the ability to be a boundary crosser. The participants identified SoTL scholars as people who actively seek out learning challenges, placing themselves in positions where they are not experts and reveling in the challenge of learning a new field.

When examining this theme, not all characteristics proved troublesome for the participants. For example, educational leaders at a research-intensive university generally have a highly developed curiosity and often have a passion for teaching and care for students. However, seeing themselves as boundary crossing was more challenging as some were working explicitly in the educative practices of their discipline for the first time. The initial period of entering the educative practices was a liminal experience while learning to see one's self as someone with expertise, or part of an expert team, in this area was transformative and often led to a changed self-concept.

For many, the characteristics of a scholar were strongly tied with disciplinary notions of research, rigor, and scholarship. What became evident was that participants recognized that the disposition of a SoTL scholar required them to go beyond their disciplinary definitions. This requirement emphasized the boundary crossing nature of SoTL scholarship and the fact that this threshold concept is not bounded within a set of constrained knowledge. However, it is worth noting that the characteristic of bounded could apply to this threshold concept should the participants remain within their disciplinary culture and not develop leadership in SoTL generally.

Amongst the past graduates and current cohort, curiosity and an inquiring mindset were explicitly discussed as imperative to enculturation into SoTL (LFS 1, QR #4, QR #14; QR #19; QR #25). All researchers are trained to cultivate their curiosity, but these participants noted that they were able to shift their focus from their discipline to the practices of teaching and learning within the discipline. It was seen as imperative to direct curiosity inwards, through ongoing reflection, and outwards, by questioning what and why things are happening in the classroom / curriculum simultaneously. One participant articulated her experience of taking on a new leadership role. Moving into this new role incited her to question tacit techniques, curriculum, and pedagogical practices (Med 2, #1). Like many of the participants, she had entered the SoTL program with an area of interest already identified. Another participant talked about her curiosity about language and its meanings as helpful in managing the initial challenges of SoTL discourse. By taking an "opportunity to learn" (QR #9, p. 2), an introduction to SoTL is "what people make of it" (LFS 1). However, the ability to make the experience personally applicable (QR #14), through discipline specific activities and readings acted as "lights on a runway," helping participants to navigate a new field with purpose and direction (Med 4, #1).

In the words of one past graduate, a SoTL scholar has a passion for teaching and care for their students (QR #4). This opinion was shared by many of the past graduates and cohort members. Often participants would suggest that they had a strong teaching focus and their engagement with SoTL had strengthened their commitment to teaching, providing them with a language and toolkit for conducting do-able research in the field. When starting the UBC SoTL Leadership Program, two participants expressed an interest in wanting to dig deeper into their teaching (Eng 1, #1), "pushing beyond what I know" (Eng 1, #2) and into an "awkward place" (QR #2), with one past graduate directly relating comfort and apathy (QR #30, p. 10). As one participant said, they "want to be a teacher who wants to investigate their practice, who wants to work with students, and not get caught down in all this other stuff, like enrollment planning or advising issues or whatever" (QR #13, p. 18). It was often clinical and adjunct faculty who gravitate towards SoTL scholarship; those who see themselves as "really hands-on with the students" (QR #31, p. 7).

SoTL inquiry could only be facilitated with a strong self-concept (LFS 1; QR #6). Nine of the participants connected the bravery to investigate the self (Med 3; QR #14; QR #19) and openness to publically exploring challenges (For 1; Ed 1; QR #2; QR #14; QR #17; QR #25) as part of the process of research into teaching and learning. One participant suggested that not everyone needs to become a SoTL scholar, but they do need to become educators. However, she saw being an educator as an identity issue (QR #19, p. 6) and therefore an "issue of vulnerability that's inherent in this process" (QR #4, p. 9). This risk taking pushed participants outside of their usual thinking and methods (QR #25). One past graduate described this as "jumping in without looking" (QR #13, p. 11). Another past graduate suggested that a strong self-concept meant that she was comfortable with the oscillation in learning and was open to the experience, meaning

that she was "capable of engaging in that messy place in between" (QR #22, p. 12). This experience in liminality could be perceived as destabilizing; however these participants all agreed that the benefit from the curiosity was worth a little instability.

Ultimately, having a breadth of interest made participants "much more familiar with having to learn a new language and work in the messiness, and often they work at the boundary, as well. So they are … translators almost" (QR #19, p. 4) using their breadth of expertise to bridge with and for disciplinary colleagues. One past graduate deftly articulated their thoughts this way,

> I believe that a jack-of-all-trades can operate on the cutting edge when the cutting edge represents an overlap or a margin of existing areas of expertise … when we've got a science and education and an evolving merger of the two, that's when a jack-of-all-trades can be a good contributor. (QR #8, p. 6)

Part of boundary crossing is adaptability, which was identified by one past graduate (QR #14) and, echoed by others (QR #9; QR #17; QR #19; QR #20; QR #22; QR #30). Many participants who had diverse disciplinary backgrounds did not see themselves as unique boundary crossers as their institutional culture had often made them feel like outsiders. Only one past graduate cited her diverse background as explicitly helping her in her career. Yet many recognized that their ability to move between different disciplines, based on their interests, allowed them flexibility beyond traditional disciplinary confines.

Learning SoTL gave participants the confidence to contribute in new ways and take on leadership roles (Eng 1; QR #25); "SoTL influenced my bravery" (QR #25, p. 11). As a result of their shifting understanding of inquiry into teaching and learning and enculturation into a new

field of research, they now have the language for evidence based research and "that has made it possible for me to contribute in the department in quite a wide range of capabilities, teaching, development, but also in administrative roles" (QR #8, p. 6).

As a threshold concept, the disposition of a SoTL scholar was not always troublesome as two of the criteria (curiosity and care for students) were often taken for granted amongst the educational leaders. Recognizing within themselves a strong self-concept and boundary crossing ability appeared troublesome for participants and yet, these characteristics also appeared to be helpful in navigating the liminal space with fluidity. Transformation was most explicitly evidenced in the discursive changes that allowed these educational leaders to disseminate in the field and act as translators for their colleagues. Again, the threshold concept characteristic of bounded was challenging to find in the data as only those focusing their SoTL research within a particular discipline felt bound by those ways of thinking and practicing.

5.1.8 Boundary Crossing

Boundary crossing integrates many different disciplines together in a holistic context and therefore transcends the traditional boundaries of each discipline. As a threshold concept, boundary crossing rejects a simplified delineation of scholarship (often disciplinary) and embraces the mingling of multiple disciplines. The complex unification of knowledge encourages scholars to consider the relationships between, across, and beyond individual disciplines.

In the case of this study, participants (both past graduates and the 2013-2014 cohort) unanimously cited the interdisciplinary cohort as a key aspect of the UBC SoTL Leadership Program. The intermingling of scholars from different disciplinary contexts and personal

approaches created an intellectual space where participants were encouraged to think not just in an interdisciplinary way, but across disciplinary boundaries. One participant said, "I desperately wanted cross-fertilization from people, and it filled my need for that" (QR #2). A recent past graduate said, "It was invigorating because it was just so completely different" (QR #32, pg. 8). Listening to how other people frame their work provided an opportunity to pull from previously unknown areas (QR #6), which is a central concept of SoTL under the big tent (Huber & Hutchings, 2005).

The interdisciplinary UBC SoTL Leadership Program cohort was seen as helping to mitigate the liminal challenges of learning SoTL in a non-disciplinary venue. When working with their colleagues in the classroom sessions, participants initially would preface their comments with, "I come from a background in …" (FN 1, FN 2, FN 3); however this statement served as a jumping off point from which they would attempt to integrate different perspectives or new understanding. In this study participants expressed a desire for more ongoing, sustained involvement with their cohort colleagues, often as part of the classroom sessions as this helped them navigate the liminal space.

Participants experienced troublesomeness in different ways. For some, it was the challenge of seeing themselves as students; for others, it was the multidisciplinary context. Specifically, conducting a peer review of teaching, developing a teaching dossier, and completing of the Teaching Perspectives Inventory[6] helped participants recognize some of the pedagogical and curricular challenges that they were experiencing in their practice. Two cohort participants noted a disconnect between what graduate education had trained them to do and

[6] The Teaching Perspectives Inventory (http://www.teachingperspectives.com/tpi/) is a tool to help educators examine their teaching within diverse contexts.

what was expected by students. Linking the thematic readings, classroom discussions, and portfolio tasks through the monthly reflections was also helpful. It was important for the participants to understand the nature of reflection rather than response to the readings; however once they were comfortable with academic reflections working through rising issues in the portfolio forced participants to articulate everything on paper "as opposed to dealing with it all in my head" (QR #13). Having to apply the SoTL learning to a Teaching and Learning Enhancement Fund[7] grant application was particularly valuable for one respondent (QR #15).

The educational leaders often take up the requirements of the UBC SoTL Leadership Program program, presented as ePortfolio tasks, as if they were students they teach. This behavior and mindset was evidenced by the questions asked by cohort participants in two separate classroom sessions, concern with the required length of reflections and the instrumental needs of completing the program (FN 1; FN 2). As participants were encouraged to shift their focus to the broader goals of ongoing personal, professional practice they were encouraged to make the program's ePortfolio requirements individually relevant, thus challenging their conception of themselves as students. Two questionnaire respondents (QR #14; QR #23) noted that the program requirements themselves were a challenge as they felt that the requirements drove the program rather than issues in the field of SoTL. This observation appears to miss the larger, transformative leadership intent behind the program and focus, like a student, on the more instrumental aspects of the program. While some cohort members transitioned into autonomous SoTL scholars, this evolution was not evident in the discourse (language, questions, and

[7] The Teaching and Learning Enhancement Fund was established in 1991 to support innovative and effective educational projects that enrich student learning. The fund continues to support projects that align with UBC's strategic initiatives.

reflections) of all of the participants.

Within the 2013-14 cohort, nine of eleven presentations by participants were pedagogically, and often classroom, based, representing topics such as engagement of large classes, measuring student learning and teacher effectiveness, embracing the diversity of the classroom, and managing technologically enabled learning. These topics represent the most pressing concerns of the participants. Interestingly, one respondent (QR #13) noted that the capstone presentations, from a multi-disciplinary cohort were particularly challenging, as he was not familiar with the area or context of the presenter. Some of the presentations demonstrated challenges with research design as the presenter was moving outside of their disciplinary culture. The adoption of new research paradigms, the use of new research methods, and the alignment of research questions with new ways of gathering data proved difficult for educational leaders learning SoTL. The clustering of these concerns highlights the interconnected nature of many of the identified threshold concepts. Shifting conceptions of research, the dispositions of a SoTL scholar, and boundary crossing were all troublesome as participants encountered SoTL.

Collegial networks were the most often cited strategy for overcoming challenges. Both the cohort and the past graduates noted that activating a supportive network was key. The collegiality of the group was recognized as a strength of the UBC SoTL Leadership Program and one aspect that helped the participants navigate the challenges of liminality. Sadly, however, the issue of isolation and institutional culture was pervasive. “This wasn’t and still isn’t something that I can do in the faculty that I teach in” (QR #20). Both the cohort members and the past graduates suggested that they are one of very few people in their department or discipline area who were embarking on SoTL work. As a result, they felt isolated and would appreciate formal opportunities to connect after graduation from the UBC SoTL Leadership Program (FN 8).

Talking to others who were having similar challenges helped to articulate areas of needed support and reduced isolation. While reading through the literature may raise more questions, taking the time to 'hash out' some challenges helped to refine questions. Self-directed small group discussions, both within and away from formal cohort meetings, including the external peer review, were enriching. The experience, support, and insights shared by peers were encouraging. Two of the cohort participants highlighted the value of presenting the capstone project (FN 8); the preparation of the presentation helped to clarify the project focus and the feedback received was recognized as valuable. As well, it was engaging for the cohort members to see other presentations. It opened their minds to things that they had not thought about before (FN 8). Within the learning management system, the blog tool was seen as a missed opportunity to create community and connect cohort members. Expert colleagues, disciplinary peers, and multi-disciplinary cohort classmates form the triumvirate of support. Finding mentor educators or talking with other past graduates and award winning instructors was “very helpful in understanding how to put concepts in perspective of ‘real life’ classrooms” (QR #2).

The threshold concept of boundary crossing emphasizes the integrative aspect of learning SoTL. While the troublesomeness may be differently experienced, the experience of being part of a multidisciplinary cohort helped all participants to navigate liminality and transcend traditional boundaries. The adoption of a broad view of teaching and learning in higher education is evidence of a transformed understanding. Those that demonstrate mastery of boundary crossing as a threshold concept have the ability to move between the ways of thinking and practicing in different fields; demonstrating a lack of boundedness.

Table 5.1
Summary of Potential Threshold Concepts in SoTL

Potential Threshold Concepts	Characteristics of Threshold Concepts			
	Troublesome	Liminal	Transformative	Bounded
The Nature of SoTL	Some	X	Some	X
Conceptions of Research	✓	✓	✓	X
Subjectivity	✓	✓	✓	X
Institutional Culture	✓	✓	✓	Disciplinary constraints
Teaching as Scholarship	✓	✓	For some	X
Studentness	✓	✓	✓	X
Disposition of a SoTL scholar	Limited	✓	✓	Minimal
Boundary Crossing	✓	✓	✓	X

5.2 Enhancing and Constraining Threshold Concepts in SoTL

Research question two probed the practical aspects of threshold concepts in the scholarship of teaching and learning. It addressed the purpose of the study directly by asking "***For institution-level/Faculty-level educational leaders at a Canadian research-intensive university, what enhanced or constrained their ability to navigate threshold concepts in SoTL?"*** These potential threshold concepts, presented in Table 5.1, the observation of classroom sessions, in-depth responsive interviews, and ePortfolio analysis helped to probe deeper into the experience of participants.

5.2.1 Enhancing Threshold Concepts in SoTL

A Chinese proverb suggests, "To know the road ahead, ask those coming back." This saying helps researchers tap into the propitious modalities of supporting educational leaders as they navigate threshold concepts in SoTL. The strategies used by cohort members can inform ways of assisting participants through the experience of threshold concepts in SoTL.

5.2.1.1 Introducing SoTL Research

In order to facilitate a change in conceptions of research, specific and focused instruction is required. Drawing attention to the ways of thinking and practicing in SoTL needs to be done consciously and actively by both participants and instructors. Participants suggest that they need to anchor themselves in the discipline specific educational literature in order to provide a jumping off point for their personalization of SoTL. As well, the findings suggest that the educational leaders were keen to engage in the theory of SoTL as well as their practical teaching and learning projects.

The usefulness of SoTL research, and its direct application to the teaching and learning context, was noted as a central concept (Sci 2, #1). Being able to apply the interdisciplinary learning from the UBC SoTL Leadership Program directly into personal practice and using literature informed, empirical research garners more respect within the home culture of participants. Unfortunately, the educational leaders were stuck in the liminal state if they were not connecting their SoTL work with their everyday practice. In such circumstances, there was no practical application or evidence to discuss and, as a result, the nature of the assistance required often covered the same ground repeatedly. In this way, the educational leader was taking the instructor/mentor's time and continuous effort to support their development. However,

if they were continuously engaged in thinking about SoTL, then a small amount of time could have a greater practical impact.

5.2.1.2 Developing a SoTL Mindset

It is important to foster a SoTL mindset in educational leaders. The foundation of navigating threshold concepts in SoTL rests in developing self-knowledge about teaching and learning through reflection, communities of practice, collaboration, and discussions with colleagues, peers, and cohort members. The disposition of a SoTL scholar acts as the key to encouraging SoTL development in pedagogy, curriculum, and ultimately a move from scholarly teaching to SoTL scholarship. Once there is a foundation of scholarly curiosity and inquiry into teaching and learning, a formal inquiry can be built through reflection, collaboration, and discussion. Two of the respondents (QR #2; QR #8) claimed explicitly that support from significant workplace colleagues or mentors was key to their engagement in SoTL and on-going participation in the field. Informally, almost all of the participants suggested that the support of the instructional team was imperative to their sustained engagement in the UBC SoTL Leadership Program.

5.2.1.3 Support at Many Levels

One of the prevalent threshold concepts is the pervasive influence of institutional cultures. In order to combat this constraint, local, disciplinary cultures have to coordinate with institutional cultures. In the local context, having department heads and deans who are highly supportive of the small group of teaching and learning experts means that support "starts at the top" (QR #8). The development of SoTL capacity that is strategically placed and institutionally

supported can work to create an institutional culture that enhances SoTL leadership within a research-intensive university.

Cohort participants unanimously cited an interdisciplinary community as being central to their understanding of SoTL. Not only does the UBC SoTL Leadership Program offer participants an opportunity to see the "world outside" their faculty (Sci 1, #2), but it also assists them in navigating the balance between teaching and disciplinary work. Moving away from confined disciplinary cultures through multidisciplinary exposure was stimulating for participants and helped them build resilience.

Beyond the individual, fostering and maintaining interdisciplinary relationships provided fertile ground for cross-pollination. The big tent of SoTL research (Chick, 2014; Huber & Hutchings, 2005) allows novice SoTL scholars to draw upon the collective wisdom of a local community (i.e., colleagues, departmental networks, faculty groups, institutional communities of practice), institutional resources (i.e., librarians, a centre for teaching and learning) or pan-institutional organizations (i.e., STLHE, ISSoTL) when designing SoTL research. These resources provide supported mimicry until the threshold can be crossed. These networks create a safe space to be a novice. Encouraging the exploration problems openly makes the classroom a public space and teaching a public act. The development of a SoTL mindset and the position of "studenthood" (Cousin, 2012) can create a generative space to explore a new field.

Despite the pervasive influence of institutional culture, emphasis on identified threshold concepts can assist in facilitating the transition from scholarly teaching to scholarship in educational practices. Reflecting on a vantage point of the research, questioning tacit knowledge carried from disciplinary cultures, and learning the language and methodologies of a new field invites the educational leader to be actively involved in reconsidering teaching and learning in

higher educational contexts as a research area with its own culture. Broadening understanding about teaching and learning beyond an individual course, classroom, or topic will help educational leaders see and create permeability within institutional cultures. The evidence suggests that participants need to develop the mindset of a SoTL scholar.

5.2.2 Constraining Threshold Concepts in SoTL

Unlike strategies for navigating liminality, specific constraints were identified by participants, which interfered in their ability to navigate the threshold concepts in SoTL.

5.2.2.1 Ingrained Disciplinary Cultures

This research exposes the impact of ingrained, disciplinary culture despite policy changes at the institutional level. Participants noted that the achievement of tenure freed them to pursue teaching and learning interests; however this should not be necessary if university policy on promotion, tenure, and merit recognizes SoTL research as equivalent with disciplinary research. To the participants of this study, the link between their disciplinary practice and their SoTL practice was not established, as there may be recognition on paper but not in the unwritten culture of departments and faculties. Disciplinary cultures are resistant. There is a closed mindset to varying conceptions of research and informally, they do not recognize the Professor of Teaching rank. Therefore there is no incentive to engage in scholarly teaching let alone SoTL. As educational leaders engaging in SoTL have to convince their colleagues that educational research is valid and rigorous to the same standard as disciplinary research, it is not surprising to hear that past participants continue their interest in research in teaching and learning, but cannot find the time to do it. Compounding the barrier of time is the issue of professional responsibility.

Participants noted that they are hired to do a particular job and that SoTL research can be an addition or side project, but then it should not be their entire job. Therefore, there is a tension in which the first responsibility is to the discipline, but there is also responsibility to scholarly curiosity and the students they teach.

5.2.2.2 Willing Engagement

The development of a SoTL mindset can be troublesome, as it requires integration in order to be transformative. However, those who move into SoTL scholarship with greater ease are those who bring many of these dispositions with them and a familiarity with boundary crossing attitudes. By taking on the mantle of "studenthood" (Cousin, 2012), an educational leader places himself or herself on the novice to expert continuum and sets the expectations of growth rather than expertise. Changing conceptions of research requires willing engagement by educational leaders in research-intensive university contexts.

The ongoing emphasis on conceptual mastery in threshold concepts highlights the cognitive journey that is part of acquiring threshold concepts (Cousin, 2012; Walker, 2013). However, there are significant challenges to mastery that have to be acknowledged. Learners that have not moved through the liminal state could have two potential outcomes. First, partial or superficial understanding could present as mimicry. Mimicry can be used as either a coping mechanism, as the learner is still in a liminal state, or as a model of the ways of thinking and practicing within the discipline that the novice copies until the new discourse can be integrated into their knowledge. More seriously, learners may become frustrated, lose confidence, and quit. Land et al. (2005) suggested that curricular design needs to investigate the sources of epistemological barriers and free up the blocked places by redesigning course sequences and

activities; “[w]e would seek to create supportive liminal environments to help students through such difficulty – what might be characterised as a kind of conceptual peristalsis – that they might move on and succeed” (Land et al., 2005, p. 55).

Like the beginning of work in any new field, ways of thinking and practicing act as significant barriers. The discourse of SoTL and knowledge of epistemologies and ontologies of SoTL research were the largest challenges identified by both the current cohort and the past graduates. The entrance into a new field requires knowledge of a new language, literature, theories, and research paradigms. Almost all of the cohort participants found the language and research design of qualitative research to be a challenge. Articulating cohesive research design (aligning research questions, methodologies, and data collection methods), finding the relevant literature, and the ethics of classroom research produced profound barriers to learning, as they represent not only cognitive but requisite ontological shifts.

5.2.2.3 Separating Scholarly Teaching and SoTL

The difference between scholarly teaching and SoTL was identified as a “stumbling block” (Eng 1, #1, p. 5; QR #10). Questionnaire respondents reiterated the need to understand the principles of quality scholarship. Initially introduced by program instructors, SoTL as a research field was defined as literature informed, theoretically grounded, and methodologically rigorous. While the definition of rigorous scholarship was understood within participants’ disciplinary fields, the appreciation of rigor within SoTL research took some time. A re-immersion into theory pushed participants out of reflective inquiry and into research; “it has forced me to go to make time to do the things that maybe I wouldn’t do in my day to day practice to such an extent” (QR #4, p. 7). The engagement with scholarly teaching sent out the initial

tremors that shook the foundation of epistemology, “It’s a big step to begin thinking about scholarly teaching, especially when you’ve been doing teaching for so many years without thinking about that. And fundamentally, it requires changing your ideas about how people learn and what is knowledge” (QR #19, p. 5). In a very astute comment, a past graduate suggested that there is a tension between two pieces in learning SoTL, “one being practical, pragmatic, concrete strategies, or applying teaching and learning concepts to your teaching practice versus start thinking differently about your teaching practice and start thinking about translating your teaching practice into educational research” (QR #22, p. 7).

The implementation of reflective and reflexive practice marks the beginning of movement from scholarly teaching to scholarship of teaching and learning. The development of a reflective mindset is something that two respondents describe as valuable to their on-going practice in SoTL, "I TRY to have that mindset everyday in class. I don't always get it right but at least I am able to see when something doesn't work and I try something different" (QR #20). Another respondent noted,

> Initially, I was frustrated at having to make the process more overt. The inquiry/reflection process is natural and well practiced for me, it was unclear why I should have to respond to the [student evaluation of teaching] - I felt I knew far better than my students what I needed to do to improve my teaching, but in this too I grew to see little things that would not have otherwise been apparent. (QR #4)

But, at the same time, one past graduate recognized that "there is always something to learn" (QR #15). The literature informed and evidence-based focused discussions on issues, while challenging at first, assisted the foundation of a collaborative community. A community of

practice is deeper than a conversation about teaching and learning, it helps to facilitate the transition from scholarly teaching to scholarship in teaching.

5.2.2.4 Enculturation Into a New Field

Finding discipline specific and useful additional readings presented two challenges: one, wading through the resources available on Connect to find pieces that were personally relevant and two, moving outside the program specific resources. One 2013-2014 cohort member noted that she was "floundering" (Med 4) until finding and reading *It's NOT rocket science: Rethinking our metaphors for research in health professions education* (Regehr, 2010) and then having a conversation with the author. She described it as a turning point in her UBC SoTL Leadership Program experience. As well, the Green Guides (published by STLHE) provided a deeper understanding of particular issues and some of the struggles that students face (QR #28). Another 2013-2014 cohort participant noted that she was familiar with the fundamentals of a literature search within her discipline (using, for example, PubMed), but finding SoTL literature, discipline specific teaching literature, or educational research were not familiar (FN 3). Ultimately, she scheduled an appointment with an Education librarian to seek expert assistance. She relayed her experience, to the 2013-2014 cohort, of going to the Neville Scarfe Building and the resources that she had found. Drawing on this newfound literature and exploration of theories of learning encouraged educational leaders to consider how they are conceptualizing /engaging with their students.

The Teaching Perspectives Inventory is one of the tools that can help develop self-awareness and an articulate teaching style. The TPI challenged cohort members and past graduates to consider, more deeply, their conceptions of teaching and learning in higher

education. Some were not happy with the descriptive category in which they found themselves, instead choosing to rationalize the large amount of content as a driver in their teaching. One questionnaire respondent described taking the Teaching Perspectives Inventory again, later in the program, and then reflecting on their changed results as a powerful aid in the development of their understanding of their own values and beliefs about teaching and learning. Understanding personal values and beliefs about teaching and learning led to an articulation of a teaching philosophy and an understanding of how learning happens within participants' context. Tracing these threads was articulated as foundational to the development of a SoTL scholar mindset. The inclusion of adult learning theories was helpful here by giving a language to what participants knew through observation and intuition.

5.2.2.5 SoTL Discourse and Conventions

The language of any field is dense with its unique jargon; as one participant quipped, "I don't speak UBC" (QR #14, p. 10). The language and culture of SoTL added to the complexity of enculturation into the field was central to an understanding of SoTL as was changing one's definition of knowing (QR #25, p. 11). The cognitive load of the language became a barrier, until participants could make sense of the connotative, contextual meaning of the discourse. In the classroom sessions, the discourse of SoTL, used fluently by some participants, was evident in class discussions from the third session onwards (FN 3). Use of SoTL discourse was evidenced throughout the interview, most notably as distinguishing between scholarly teaching and the scholarship of teaching and learning (Med 2, #1, p. 4). One of the past graduates, currently working as a Teaching and Learning Fellow in the Faculty of Science, suggested that it was their job to developing proficiency in a new language. They go on to say,

> One of the challenges is for me to learn that new language and then when I'm talking to colleagues – who are researchers – trying to translate the new language that I've learned into almost lay terms. So there's very definitely a language and communications barrier, and it's all about the jargon of an expert. (QR #8, p. 2)

One cohort member noted that in the beginning of the program, "I didn't have the language" or the ability to articulate (Med 1, #1, p. 7) concepts that were familiar.

Connected to conceptions of research, a respondent from the Faculty of Arts (QR #24) highlights the differentiation of "method versus methodology" as a challenging topic or theme. Throughout the presentations, research methods of data collection were mislabeled as methodologies. The tacit understanding of connotative, contextual meaning was often unchallenged by the cohort group. Yet, while the terminology may be new, more than half the participants explicitly articulated that the concepts seem intuitive; "we don't use that word, but we know that that's what we are doing" (Med 2, #1, p. 2).

As part of educational research within various disciplines, SoTL research traditions are diverse. The "messiness" of these new research methodologies and methods creates significant challenges for novice SoTL scholars. Focusing less on discipline and more on teaching and learning is a thought-provoking proposition for discipline experts and highlights the "challenging aspects of expert, evidence-oriented teaching and learning" (QR #8). This reconceptualization of "data in the SoTL context as opposed to my disciplinary context" (QR #19) was key. In the first classroom session, one of the instructors introduced SoTL research using the terms of qualitative research (i.e., constant comparative and transcription of data). The discussion that followed highlighted the epistemological and ontological assumptions about research that accompanied

the participants. While it was important that participants drew upon their strengths and personal knowledge, it was important to acknowledge that they were conducting and disseminating within an educational context. The majority of the projects were pedagogically based, which means that they were immediately and directly impacting students. Yet, very few of the presentations were focused on students as participants in the research. In fact, many of the presentations had underlying positivist assumptions as evidenced by presenter's use of "control and experimental groups", "randomized trial" and "validated tool" (FN 4), when describing pedagogical inquiry projects. Only one of the participants voiced concern with the positivist terminology. The entry in the research journal, which corresponds to this specific class session, notes the lively discussion of quantitative research methods following each presentation, but limited discussion of qualitative methods as best suited to answer the research question and no discussion of research ethics in classroom environments.

5.2.2.6 Learning to Be an Educational Leader

Learning to be an educational leader in SoTL presented many participants with the challenge of combining their roles as discipline experts and educators. The comments of one medical educator demonstrated how the researcher and the practitioner are seen as separate; "my real thing is that I am a clinician" (Med 4). As a clinician, she was comfortable with "uncertainty and incomplete evidence" in diagnosis, but sought certainty when designing and conducting research. Eventually, once an ontological shift had begun taking place, she drew upon these characteristics when designing a SoTL research project. This ontological stance pushed at her traditional belief system of medical research. As discipline specialists, it is possible to spend very little time exploring teaching and learning before being required to teach courses in higher

education. This participant's experience demonstrates that "teaching is an area of expertise that not all post secondary educators are aware" (QR #8). However, one respondent aptly notes, "I don't think the topics or themes were challenging in themselves. For me, it was the implementation of the lessons that I learned into my teaching practice" (QR #20). In this case, the respondent was more familiar with reflective practice and scholarly teaching, but struggled with implementing SoTL research in their institutional context of teaching and learning in higher education.

5.3 Summary

This chapter identified the key findings, as articulated by the participants. Using interpretive phenomenological analysis (van Manen, 1997), the findings have been arranged into potential threshold concepts in SoTL. Each of the potential threshold concepts was assessed using, as criteria, the pertinent threshold concepts characteristics. The chapter continued with the results of the second research question, examining the enhancements and constraints of threshold concept mastery in SoTL.

Taken together, the themes represented a rich, contextual interpretation of threshold concepts in SoTL that focused on the lived experience of the participants. Yet, it is important to acknowledge that participants' conceptions were many and varied, which reinforced the complexity of learning SoTL. In the chapter that follows, I will discuss the findings and the implications of the study as they relate specifically to the research questions.

Chapter 6: Discussion, Conclusions, and Implications

The purpose of Chapter Six is to discuss the study, make recommendations for future action, and pose further questions. The intent of Chapter Six is to explicate what has been learned and what can be said about threshold concepts in SoTL. In a general sense, this chapter attempts to reflect a deeper understanding of what lies beneath the findings. A detailed examination of the issues as they developed is critical for this understanding. For this study, the challenge lies in making sense of the results in Chapter Five in such a way as to generate plausible interpretation of threshold concepts in SoTL. Supporting arguments will draw from the context and literature review developed in Chapters Two and Three as necessary.

In this chapter, I discuss the results. The following sections will focus on the patterns and relationships, the conflicting findings, and the unexpected results. Particular emphasis is placed on identifying those themes with significant evidence to support their consideration as threshold concepts and the themes worthy of further inquiry, as well as considerations for interpreting the results. Next, I discuss how the analysis extends our current understanding of the phenomenon of threshold concepts in SoTL. Finally, the implications of the study are presented.

It is hoped that by the time readers have finished the final chapter they will have a good sense of the lived experience of educational leaders in the UBC SoTL Leadership Program, the challenges and opportunities for designing similar programs, how this interpretive phenomenological research study contributes to the scholarly literature on SoTL, and possibilities for future inquiry.

6.1 Discussion of the Results

The purpose of this research study, as stated in Section 1.2.1, is to explore threshold concepts in the scholarship of teaching and learning and articulate what enhances or constrains the ability of institution-level/Faculty-level educational leaders to navigate threshold concepts in SoTL in a Canadian research-intensive university context.

This study began with an overview of the SoTL and the literature pertaining to threshold concepts. Despite greater awareness of the benefits of SoTL, few educational leaders are actively engaged in SoTL research. Compounding this problem, typical pedagogical and curricular changes are made without sufficient literature informed, empirical research in the area. Often this is the case as those tasked with making high-stakes decisions lack the requisite knowledge and skills in SoTL. In the current RIU context, an understanding of SoTL that includes knowledge of threshold concepts can facilitate greater adoption of SoTL research frameworks in research-intensive universities.

The corpus of data was analyzed and eight themes were identified as potential threshold concepts: **The Nature of SoTL, Conceptions of Research, Subjectivity, Institutional Culture, Teaching as Scholarship, Studentness, the Dispositions of a SoTL Scholar**, and **Boundary Crossing**. As well, factors that enhance and constrain the ability of educational leaders' ability to navigate threshold concepts in SoTL were identified.

6.1.1 Threshold Concepts and SoTL in Context

Research in threshold concepts has contributed significantly to doctoral education (Humphrey & Simpson, 2012; Kiley, 2009; Kiley & Wisker, 2009; Trafford & Lesham, 2009) and faculty development programs (Bunnell & Bernstein, 2012; Kandlbinder & Peseta, 2009;

MacLean, 2009; Meyer, 2012; Moore, 2012). As educational leaders in the UBC SoTL Leadership Program are crossing the boundary between their disciplinary expertise and the ways of thinking and practicing in SoTL, it was expected that the threshold concepts in these two fields might be influential.

Threshold concepts are transformative, irreversible, integrative, and often but not always bounded and often troublesome (Meyer & Land, 2003; 2005; 2006). As mentioned in Chapter Three, for the purposes of this study, significantly greater emphasis was placed on transformative nature of troublesome knowledge as learners navigate the liminal space. In examining the lived experience of the phenomenon of threshold concepts in SoTL, it becomes apparent that not all of the themes have evidence to support that they are indeed threshold concepts. Consistent with the literature on threshold concepts, discussed in Chapter Three, this study suggests that not all potential threshold concepts exhibit the characteristics consistently and in the same manner. Of the eight themes, summarized in Table 5.1, five exhibit significant evidence to warrant consideration as threshold concepts; **conceptions of research, subjectivity, institutional culture, studentness**, and **boundary crossing**.

6.1.1.1 Perceived and Real Challenges

The results presented in Chapter Five revealed complex and varied application of SoTL knowledge amongst the participants. While, this research corroborates what Bunnell and Bernstein (2012) have suggested as threshold concepts for faculty members who engage in scholarly teaching, it also adds specific examples that document the perceived and real institutional challenges. Over the sixteen years of the UBC SoTL Leadership Program, change was not uniform, with some participants becoming more active in SoTL (institutionally and

nationally), and others confining the effects of the program to their classrooms. Some participants suggested that they came to the UBC SoTL Leadership Program with an interest in change (both personal and professional) and consciously put themselves in intellectually and ontologically challenging positions. But, almost all recognized that their experience changed their whole approach to learning, seeing the program as "an enlightening experience" and "a stepping off point" that opened their eyes.

6.1.1.2 Embracing Liminality

Exemplifying high stakes learning in higher education, faculty members require support as they pass through the liminal state. There are times during their induction into SoTL when they demonstrated ontological and discursive shifts. The transition to studentness propelled faculty members into insecurity as they were oscillating on the continuum. This transition can be highly intimidating, especially to educational leaders in higher education who often are charged with making high stakes decisions about curriculum at research-intensive universities. Educational leaders, as new SoTL scholars, are in continuous oscillation between being expert in their discipline and being novices in the scholarship of teaching and learning. In this study, the UBC SoTL Leadership Program provides a space/place/time, physically and intellectually, outside of disciplinary cultures where innovation does not need to be constrained by previously held assumptions and conventions.

Developing curiosity about the classroom was identified as an introductory way into authentic educational questions. While the educational leaders who became novice SoTL scholars cultivated the identity of an educator, they could adopt mimicry to facilitate early threshold crossing. Interestingly, this mimicry happens at all levels. One past graduate, who has

moved into the role of SoTL facilitator in her department, felt that she was mimicking the instructor of the UBC SoTL Leadership Program until she could create an identity for herself as the discipline specific SoTL person. The uncertain, liminal position of a novice can be scary, but it can also be tremendously generative.

Previous studies have discussed identity transformation (Meyer, 2012) and ontological shifts (Trafford & Lesham, 2009) as important aspects of threshold concepts mastery. The findings of this study suggest that it was important to draw upon a holistic view of approaching and passing through threshold concepts, especially when it came to integrating the unique practices of an interdisciplinary field like SoTL. Participants recognized that the ability to transcend disciplinary boundaries was instrumental in navigating the liminal state. I suggest that the threshold concept of boundary crossing encompasses that transcendence.

Embracing liminality means that a learner recognizes that navigating threshold concepts can be emotionally taxing. The adoption or encouragement of particular dispositions, then, would help learners mitigate the negative aspects of the liminal experience. Much like Kiley's (2009) assertion that peer learning is an important strategy for coping with liminality, this study has found that a support network is key. While all the participants have experienced working through a challenging learning process, they have also activated collegial networks. Supported by a community of practice, self-efficacy, optimism, hope, and resilience could provide a personal foundation for the negotiation of the liminal space (Land, 2012). Externally, the relationship between instructor and learner was key to navigating a threshold. In accepting the position of "studenthood" (Cousin, 2012), a learner accepts an implied apprenticeship of enculturation into new or changing knowledge.

6.1.1.3 Research in SoTL

The theme of research in the scholarship of teaching and learning was the most prominent, and it captured several of the other organizing themes. Using a framework and research paradigm, previously identified threshold concepts in doctoral education (Kiley & Wisker, 2009), were also identified as influential threshold concepts in SoTL. Issues such as the language and discourse of SoTL and recognition of teaching as public, researchable act were highlighted as foundations for developing SoTL scholarship. Many of the past graduates noted that the key concepts of SoTL were integrated into their general understanding of the field, while current cohort members were directly mimicking the language that was used in classroom sessions. Past cohort members, much more than the current cohort, felt strongly that the classroom was a public space for research and were comfortable with dissemination, even if the results exposed their mistakes.

One of the most pointed dividers between those who continue to engage in SoTL research and those who do not was their approach to institutional cultures and their self-concept as autonomous scholars. Many participants suggested that they would like to be able to do more SoTL research but felt constrained by their responsibilities to the research or the expectations of promotion and tenure. However, there was a small, dedicated group who were actively engaging in SoTL research. These participants adopted a broad view of research in higher education were more likely to activate resources outside of their department or school, and felt adept at moving between the ways of thinking and practicing in different fields.

6.1.2 Interpreting the Results

As discussed previously, five of the eight potential threshold concepts are strongly supported in the data. However, two of the identified themes present potential threshold concepts that need further inquiry to confirm **teaching as scholarship** and the **dispositions of a SoTL scholar**. While I believe that teaching as scholarship is a threshold concept, and there was confirmation within the data of each participants' experience to support this, there was not enough to affirm this as a strong threshold concept. As this potential threshold concept originated in Bunnell and Bernstein's (2012) research into scholarly teaching, it follows that it may not have been particularly troublesome or transformative for those educational leaders who were already scholarly teachers. As a result, they may not have identified this as a threshold concept as they may have already traversed the liminal space. Only five participants appeared to be transformed by their understanding of teaching as scholarship. This transformation speaks to the personal experience of the navigation of threshold concepts in SoTL and the challenge of seeing teaching and learning in higher education as a form of rigorous, peer reviewed scholarship. Further discussion of why there was limited evidence of the threshold concepts characteristics is needed. Did the interview questions not probe this area? Was the understanding of this threshold so integrated into the participants' understanding of SoTL that it had become tacit knowledge? Perhaps this theme is moot once an educational leader has acknowledged a subjectivity and integrated a SoTL conception of research? Or perhaps these are only threshold concepts for the participants who were from the first decade of the UBC SoTL Leadership program. This is an area where further study could be warranted.

The disposition of a SoTL scholar also deserves further inquiry as a threshold concept. Of the four characteristics of a SoTL scholar identified by the participants of the study, two

characteristics (curiosity and passion for teaching) were almost unanimously evidenced in the data and not troublesome to the participants. The other two characteristics (strong self-concept and the ability to be a boundary crosser) were troublesome as participants often lacked the ability to see themselves as more than dilettantes in SoTL or to see their capacity to work across boundaries. As a result, only some of the characteristics of the dispositions of a SoTL scholar were troublesome in the data. Additionally, while the disposition of a SoTL scholar was generally part of the interviews, it was challenging to find specific support for participants' experience of liminality and transformation. These two potential threshold concepts, while evidenced in the data, warrant further inquiry.

6.1.2.1 Recognition of Epistemological and Ontological Change

Throughout the questionnaires, observations, interviews, and document analysis, evidence of epistemological and ontological shifts was subtle. The epistemological and ontological shifts central to threshold concept learning (Cousin, 2006; Irving & Carmichael, 2009; Meyer & Land, 2005; Walker, 2013) were evident in the discourse and questions, but participants do not appear to recognize any changes until they reflected on the program as a whole. Similar to the findings of Kandlbinder and Peseta (2009), learning in a faculty development program transcends the length of the program. In the first interviews conducted with the 2013 – 2104 cohort participants, they were not able to identify any personal shift or changes beyond learning a new language or research literature. Their language, in the interviews, often demonstrated a slight linguistic shift; however their conceptualizations of the capstone projects did not articulate the ontological and epistemological shifts that were part of the follow up interviews.

One of the cohort members noted that her understanding of SoTL before and after her experience was different, but she was unable to pin it down to particular events, topics, or resources. A number of participants felt that the a-ha moments tended to be at the micro level. It was the holistic experience of incremental change that helped them integrate an irreversible foundation for SoTL research. The participants' emphasis on the importance of ongoing engagement with SoTL suggest that the engagement of the UBC SoTL Leadership Program alumni is significant in order to support the building and maintenance of SoTL capacity at a RIU.

6.1.2.2 Bounded as a Characteristic of Threshold Concepts

The threshold concepts characteristics highlighted in this study include; troublesome, liminal, transformative, and bounded. The corpus of data provided evidence for troublesomeness, liminality, and transformation in all of these threshold concepts yet there was rarely evidence of boundedness.

Threshold concepts research is frequently conducted within a single disciplinary culture (e.g., Engineering, Accounting, etc.). As a result there is consistency in the application of the characteristics of threshold concepts and therefore the determination of a concept as threshold. Those studies that have been conducted in interdisciplinary fields (e.g., university transition, doctoral education, faculty development) tend to focus on one threshold concept and one or two pertinent characteristics. In this study, the analysis of the themes in Chapter Five also highlights the suitability of threshold concepts characteristics when applied to the field of SoTL. While troublesome, liminal, and transformative were important characteristics, bounded proved to be challenging. It was minimally evident in the disposition of a SoTL scholar and seen as a disciplinary constraint in the investigation into institutional culture as a threshold concept. For

future studies on threshold concepts in SoTL, I would suggest that bounded appears to be problematic when used as a characteristic.

Based on the multidisciplinary nature of educational research within the research-intensive university context, disciplinary or conceptually bounded aspects of threshold concepts are less useful when attempting to investigate threshold concepts. Instead further inquiry into the troublesome, liminal, and transformative aspects can shed more light on the nature and substance of threshold concepts in SoTL.

6.1.3 A Complex Picture of Threshold Concepts in SoTL

The factors that enhance and constrain educational leaders ability to navigate threshold concepts in SoTL offers a complex picture of their experience of SoTL in a Canadian RIU. Developing the disposition of a SoTL scholar while acting as an educational leader both enhance and constrain the ability of educational leaders to navigate threshold concepts in SoTL. Participants drew on their knowledge of teaching and learning in higher education as they traveled from scholarly teaching towards SoTL but felt unprepared to be labeled as educational leaders. The discourse of SoTL experts and educational scholars was frequently identified as a barrier to enculturation into the field of SoTL.

The explicit introduction of the epistemologies, ontologies, and methodologies of SoTL research assisted participants in understanding the field of SoTL; however ingrained disciplinary cultures and the discourse and conventions of SoTL slowed their enculturation into SoTL. The fact that the instructional team was able to point participants to the educational literature of their field provided a jumping off point to engage in SoTL. Yet, that same disciplinary literature and culture also constrained participants. Ingrained disciplinary cultures left some participants unable

or unwilling to let go of specific disciplinary ways of thinking and practicing or to connect their SoTL practice with their day-to-day professional responsibilities.

6.1.4 Unexpected Results

There were some surprising findings that proved to be important themes. Specifically, the idea of **subjectivity** was implicitly expressed as necessary for effective SoTL scholarship. This threshold concept asks researchers to acknowledge their epistemology and ontology as drivers for how they approach research. This particular concept proved to be particularly challenging for participants in the current UBC SoTL Leadership Program cohort as the discourse of educational research was mostly foreign. Those familiar with social science or educational research found this to be less challenging.

Likewise, the threshold concept of **studentness**, articulated by one respondent on the questionnaire as the novice to expert continuum, proved to be a crystalizing concept. Recognizing the oscillation between expertise, in a discipline, and inexperience in SoTL was transformative for a number of cohort members. Past graduates were more familiar with the experience, with a few of them suggesting that they sought out experiences where they were forced into the uncomfortable novice position in order to shake up their complacency.

6.1.5 Considerations for Interpreting the Analysis

The participants in this study were a multidisciplinary group of educational leaders employed at a Canadian research-intensive university. Not only were the participants from different disciples, they also represented 13 of the 16 years of the UBC SoTL Leadership Program. The program has changed and evolved over the years from a focus on scholarly

teaching to SoTL and, since 2008, to SoTL Leadership. As a result, the experience of the cohorts before 2008 was slightly different. Consequently, the extent to which the findings will reflect and resonate with the experiences of different faculty members at differing institutions remains to be determined. For example, as mentioned in Chapter Four, one of the past graduates who participated in an interview but did not complete the questionnaire confirmed in the interview, that the general themes emerging from the questionnaire resonated with her experiences. However, she indicated that some aspects of the current conception of SoTL were shaped by her graduate work in the field following her graduation from the UBC SoTL Leadership Program. As such, she noted significantly less troublesomeness with the shifting **conceptions of research** and **subjectivity**. Consequently, the findings of this study must be interpreted with attention to the potentially unique aspects of the experience of these educational leaders at a Canadian research-intensive university.

The fact that participants self-selected to participate in the study is also worthy of attention. The participants were interested in, and comfortable with, sharing their experiences of navigating threshold concepts in SoTL. It is possible that 2013-2014 cohort members and past graduates elected not the respond to the recruitment invitation because they had a poor experience or perhaps did not consider their experience noteworthy. Further inquiry will determine the extent to which the common themes identified in this study resonate with the lived experience of other educational leaders navigating threshold concepts in SoTL. As well, it is worth noting that the evolution of the UBC SoTL Leadership Program may have provided an experience focused on SoTL Leadership to participants after 2008.

Interpretive phenomenology can be used to explore and illuminate the meaning of a phenomenon when little is known (van Manen, 1997). The intent of this study was to highlight

one particular interpretation of the lived experience of a phenomenon. The strength of the interpretive phenomenological approach is that it focuses attention on previously unknown areas. The findings in this study represent a co-construction of my interpretations and the lived experience of the participants, and therefore invite further exploration of the meaning of the phenomenon of threshold concepts in SoTL. Specific suggestions for future research will be outlined later in the chapter.

Although each of these limitations should be considered, many elements of the study design were included to mitigate these concerns. For example, member checking and expert review were both used to ensure that my findings and conclusions were grounded in the data. Each participant reviewed the initial analysis of interview transcripts with me during follow-up interviews. Careful and timely documentation of each data collection and analysis phase was employed. These methods exemplify only a few of the techniques used to ensure that the data collected were of high quality and that the conclusions generated from those data were grounded in the participants' experiences.

6.2 What do Threshold Concepts Mean to the Field of SoTL?

Based on the integration of the study findings, analysis, and synthesis, the following conclusions have been drawn. The threshold concepts presented in Chapter Five underpin the experience of navigating the field of SoTL by educational leaders and inform a better appreciation of the place of SoTL within RIUs. The experiences of the study participants are situated within a complex network of personal and professional enhancements and constraints. The experience of navigating the threshold concepts in SoTL is of particular importance to

instructional teams facilitating professional development programs in the scholarship of teaching and learning.

The increasing investigation of threshold concepts within curricula for SoTL Leadership programs (Carmichael, 2012; Land, 2012) could help instructional teams consider how SoTL could be useful to educational leaders. Therefore, highlighting these threshold concepts within SoTL could serve to 'discipline' educational leaders in the nature of SoTL as a field.

While an understanding of threshold concepts in SoTL can make the entry into a new field easier, the desire to enter the field is a key factor. As a result of this study, it is imperative that the field of SoTL research be perceived as inviting to educational leaders. It is important that any program requirements are seen as complementary to their reasons for joining a SoTL-based program as well as meeting the needs of the institutional context that supports these educational leadership initiatives. While entry into any new field requires work, educational leaders want and need to know where to place their effort as they are often conducting SoTL research off the side of their desk.

That said, earlier conceptions of the place of researchers' disciplines within the SoTL have been profoundly challenged. While it is important to appreciate the place of disciplinary training, epistemologies, and ontologies, SoTL is a type of educational research and therefore requires grounding in the conventions and discourse of the field. This research supports the belief that theory, literature, and research design in SoTL must be explicitly taught as an integral part of SoTL-based programs for educational leaders. As busy professionals, balancing many obligations, many cohort members are unable to engage with SoTL Leadership material beyond the requirements for program completion.

It serves repeating that the institutional culture of the department, school, and faculties must explicitly and implicitly support educational leadership and scholarship. There are two levels of institutional culture: the larger university level which supports SoTL Leadership initiatives and the pervasive faculty or department level which controls the first steps toward promotion, tenure, and merit. The local level of institutional culture is key in determining what research is done and how it proceeds at the local level). Having institutional policies is only useful if they are also supported at the local level. This support needs to come in many forms including recognition, strategic mentoring, incentives, resources, and most importantly, time. Underpinning the results of this study is the reality that educational leaders are situated within a complex network of personal, professional, and financial tensions. These leaders have complex circumstances for coming to a SoTL Leadership program and differing engagement with the field of SoTL. As well, their willingness to engage in studentness is a key factor in their approach to threshold concepts in SoTL as is the level of support they receive at a local level.

Finally, educational leaders come to a SoTL Leadership program for many reasons: critical incidents in pedagogical practice; a perception that it is the hardest, most scholarly professional development short of graduate school; the assumption of a new curricular leadership position; curiosity; or requirement and support, for example, by a Dean or Department Head. As a result, instructional teams cannot assume that each cohort member is at the same level of interest or engagement with the field. Each educational leader enters a SoTL professional development program at a different starting point and with differing educational leadership experiences. While educational leaders may be able to cognitively navigate the shifting conceptions of research or educational scholarship, the institutional culture, or the experience of being a novice, it does not mean that they have gone through the ontological shift that is required

to pass through the threshold into an integrated understanding of the scholarship of teaching and learning. As epistemological and ontological shifts take time, then there needs to be sustained support for educational leaders beyond a single program of study. Whether it is a group of researchers working together within a department or faculty or an interdisciplinary, campus wide community of practice on SoTL Leadership, this continued support will assist in engaging educational leaders in ongoing threshold concept mastery.

6.3 Implications

The implications of this study have potential applications locally in faculty development programs for educational leaders, globally for the field of SoTL, as well as for future research. At a local level, faculty development programs in the scholarship of teaching and learning need to support and sustain communities of practice, develop increased capacity for educational research, and support permeable institutional cultures. As a field, SoTL scholars must continue to advocate for an increased connection between SoTL scholarship and practice, focus on articulating rigorous, literature informed methodologies as well as methods, and continue to theorize with the scholarship of teaching and learning. As stakeholders within our field, we are responsible for demanding high quality research and scholarship that continues to support exceptional programs and teaching and learning practices in higher education.

6.3.1 Organizational Implications for the Scholarship of Teaching and Learning

National governing bodies, accreditation agencies, and RIUs need to foster institutional cultures that predispose, enable, and reinforce educational leaders to actively engage in SoTL. The engagement of educational leaders could be achieved through the development of an

institutional culture that values scholarship in teaching and learning as well as disciplinary scholarship. Underpinning these recommendations is the need for a department, school, faculty, and university that values the scholarship of teaching and learning equally to disciplinary research. In this study, the fact that educational scholarship was seen as an addition to participants' professional responsibilities was a major barrier. Providing SoTL scholars with the time, through differentiated workloads and strategic SoTL-based educational leadership programs, and resources for their inquiry serves to support superior quality work in the field.

The results of this study suggest that it is important to build connections between SoTL practice and pedagogical or curriculum practice. SoTL scholarship cannot be done as an 'off the side of the desk' process; those who try to do this struggle. It needs to be seen as part of professional culture in higher education and to inform all pedagogical and curricular changes.

6.3.2 Implications for Faculty Development Programs in the Scholarship of Teaching and Learning

This study articulates specific recommendations in order to build SoTL faculty development programs that incorporate the generated threshold concepts.

1) Developing a cohesive community of practice within each cohort and across the institution. Rather than seeing the instructional team as the only resources, cohort members need time to discuss their developing conceptions of SoTL, the feasibility of research questions, the adopted methodology as well as methods, and the ethical considerations of pedagogical or curriculum research. The participants of this study consistently requested time to interact with other graduates, especially as many feel isolated, and foresee little support, within their home departments or faculties. This type

of program would require the allotment of significant classroom time to go into depth on some of the pressing issues; however it is suggested that this focus will support increased permeability within institutional cultures and create a safe space for studentness. Making connections across campus helped educational leaders use their cross disciplinary connections to sustain SoTL research.

2) As institution-level/Faculty-level educational leaders are to be conducting research in an educative frame, often with unfamiliar methodologies, it is imperative to spend time introducing the methodologies of educational research. This recommendation supports the work of Kanuka (2011) and Svinicki (2012). It is often taken for granted that participants are excellent researchers, however they are not familiar or comfortable with educational research. As instructional teams, we often assumed that the participants, all successful scholars in their own fields, would be as skillful in their research in SoTL. But this assumption misses the key and fundamental issue that they are engaging in scholarship in a new field, which may or may not connect with the field/discipline of their training. Educational leaders, as SoTL scholars, need to be guided through the language and culture of a new field. While SoTL and Education research have had a tenuous relationship up to this point (Huber & Morreale, 2002; Kanuka, 2011), it is important that participants understand that they are conducting research in educative spaces and therefore it behooves them to understand the educative practices, theories, and research methodologies (not just methods) of that discipline. Strategies to support connecting SoTL and educational research could include connecting novice educational leaders with SoTL mentors, engaging a librarian to assist participants with their literature reviews, or modeling the different methods that could be used to approach a research

question through different methodologies. As well, a workshop on epistemologies, ontologies, methodologies, and methods could be developed in order to align ontologies, epistemologies, and SoTL research questions. In this study, participants asked for more guidance on SoTL theory and some of the mechanics as they designed their research. This research focus could also help separate scholarly teaching from scholarship in teaching and learning.

6.3.3 Implications for Theory in the Scholarship of Teaching and Learning

Building upon the exploration of threshold concepts within SoTL, this study recommends that the field needs to:

1) Spend time talking about research methodologies and methods. Encourage new SoTL scholars not to fall back upon their disciplinary expertise but to inform themselves of the methodologies and methods that are part of the educative practices of their discipline (in the very least) or into educational research.
2) SoTL scholars need to continually work at engaging with the theorization of SoTL as well as the practical aspects. The development and publication of a handbook would be helpful for novice SoTL scholars.

6.3.4 Implications for Future Research

The findings from this research suggests two directions for future research: 1) the confirmation of these threshold concepts and the exploration and generation of further threshold concepts in the scholarship of teaching and learning; and 2) expansion beyond a qualitative study at a local institution. Interdisciplinary threshold concepts are a relatively new area of scholarship

(Carmichael, 2010) and there is a need for greater theorization in the scholarship of teaching and learning (Gurung & Schwartz, 2010; Hutchings, 2007). As there has been limited research on threshold concepts in SoTL to date, there is room for significant contribution as ongoing research continues to expand the field.

The second research direction addresses the fact that this study was localized at a Canadian RIU, which has a sixteen-year history of SoTL Leadership and significant institutional support for the scholarship of teaching and learning. As well, the study was based on qualitative data collected through ongoing engagement with cohorts of educational leaders. While the study generates threshold concepts in the scholarship of teaching and learning for educational leaders, a similar study at a different RIU and with non-educational leaders would contribute to the complexity of the findings.

6.4 Final Thoughts

The eight-month immersion within the UBC Faculty SoTL Leadership Program context allowed me to engage with and reflect upon the experience of threshold concepts in the scholarship of teaching and learning for educational leaders. Listening to the educational leaders and observing my own students outside of this study made me realize the complex and tacit understandings that are part of the enculturation into a new field of scholarship.

As a graduate student in the Faculty of Education, who struggled with my own epistemological and ontological assumptions as I crossed disciplinary boundaries, I am appreciative of the institutional support as well as the significant time, energy, and enthusiasm that the educational leaders have put into their professional development. Despite the challenges of professional and scholarly responsibilities, it is the curiosity, open-mindedness, and passion of

these educational leaders that sustains them through the challenging expectations of a research-intensive university. This study of threshold concepts in the scholarship of teaching and learning for educational leaders sheds light on effective ways to support educational leaders, connecting these ‘lonely planets,’ and thus foster communities of practice around the scholarship of teaching and learning.

References

3M National Teaching Fellows. (2014). *Scholarship of leadership in education*. Retrieved on October 12, 2014 from http://3mcouncil.stlhe.ca/initiative/sole-scholarship-of-leadership-in-education/

Altheide, D., Coyle, M. DeVriese, K. & Schneider, C. (2008). Emergent qualitative document analysis. In S.N. Hesse-Biber & P. Leavy (Eds.), *Handbook of emergent methods* (pp. 127-151). New York, NY: Guilford Press.

Barradell, S. (2013). The identification of threshold concepts: A review of theoretical complexities and methodological challenges. *Higher Education, 65*(2), 265-276. doi: 10.1007/s10734-012-9542-3

Boeije, H. (2002). A purposeful approach to the constant comparative method in the analysis of qualitative interviews. *Quality & Quantity, 36*(4), 391-409.

Bowen, G.A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27-40. doi: 10.3316/QRJ0902027

Boyatzis, R.E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage Publications.

Boyer, E. (1990). *Scholarship reconsidered: Priorities of the professoriate*. Princeton, NJ: Carnegie Foundation for the Advancement of Teaching.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101. doi: 10.1191/1478088706qp063oa

Bryk A. S., Gomez L. M., & Grunow, A. (2010). *Getting ideas into action: Building networked improvement communities in education*. Carnegie Foundation for the Advancement of Teaching, Stanford, CA. Retrieved on September 29, 2014 from http://www.carnegiefoundation.org/spotlight/webinar-bryk-gomez-building-networkedimprovement-communities-in-education

Bunnell, S.L., & Bernstein, D.J. (2012). Overcoming some threshold concepts in scholarly teaching. *Journal of Faculty Development, 23*(3), 14-18.

Carmichael, P. (2010). Threshold concepts, disciplinary differences and cross-disciplinary discourse. *Learning and Teaching in Higher Education: Gulf Perspectives, 7*(2), 53–71.

Carmichael, P. (2012, June). *From this curriculum to that which is to come*. NAIRTL Conference, Trinity College Dublin. Retrieved on July 10, 2013 from www.nairtl.ie/index.php?pageID=634

Carnegie Foundation for the Advancement of Teaching. (n.d.). *Foundation history*. Retrieved July 3, 2013 from http://www.carnegiefoundation.org/about-us/foundation-history

Carnegie Foundation for the Advancement of Teaching. (n.d.). *Carnegie Academy for the Scholarship of Teaching and Learning*. Retrieved July 3, 2013 from http://www.carnegiefoundation.org/scholarship-teaching-learning

Casper, Gerhard. (1998, May). *The advantage of the research-intensive university: The university of the 21st century*. Address given at the Peking University Centennial. Beijing, People's Republic of China. Retrieved July 5, 2013 from http://www.stanford.edu/dept/pres-provost/president/speeches/980503peking.html

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Thousand Oaks, CA: Sage Publications Inc.

Charmaz, K., & Mitchell, R. (1997). The myth of silent authorship: Self, substance, and style in ethnographic writing. *Symbolic Interaction, 19*(4), 285-302.

Chick, N.L. (2014). 'Methodologically sound' under the 'big tent': An ongoing conversation. *International Journal for the Scholarship of Teaching and Learning, 8*(2). Article 1. Retrieved on September 1, 2014 from http://digitalcommons.georgiasouthern.edu/ij-sotl/vol8/iss2/1

Cousin, G. (2006). An introduction to threshold concepts. *Planet*, 17, 4-5.

Cousin, G. (2008). Threshold concepts: Old wine in new bottles or new forms of transactional curriculum inquiry? In R. Land, J.H.F. Meyer, & J. Smith (Eds.), *Threshold concepts within the disciplines* (pp. 261–272). Rotterdam, The Netherlands: Sense Publishing.

Cousin, G. (2012, June). *Threshold concepts as an analytical tool for researching higher education*. Paper presented at the NAIRTL Conference, Trinity College Dublin. Retrieved on July 10, 2013 from www.nairtl.ie/index.php?pageID=633

Cox, M. D. (2008, May). Challenges and advantages offered to SoTL by crossing discipline boundaries. *Proceedings of the London Scholarship of Teaching and Learning 7th International Conference, City University London, Vol. 4*, 192-198. Retrieved on July 7, 2013 from http://search.heacademy.ac.uk/kb5/hea/evidencenet/resource.page?record=7WUHNneyzMo

Creswell, J.W. (2013). *Qualitative inquiry and research design: choosing among five approaches.* Thousand Oaks, CA: Sage.

Crotty, M. (1998). *The foundations of social research*. London: Sage Publications.

Dall'Alba, G. (2009). Phenomenology and education: An introduction. *Educational Philosophy and Theory, 41*(1), 7-9. doi: 10.1111/j.1469-5812.2008.00479.x

D'Andrea, V-m. (2006). Exploring methodological issues related to pedagogical inquiry in higher education. In C. Kreber (Ed.), *Exploring research-based teaching* (New Directions for Teaching and Learning 107) (pp. 89-98). San Francisco, CA: Jossey-Bass. doi: 10.1002/t1.247

Danielson, M.A. (2012). SoTL as a generative heuristic methodology for building learning communities. *International Journal for the Scholarship of Teaching and Learning*, *6*(2). Retrieved on July 5, 2013 from http://www.georgiasouthern.edu/ijsotl/v6n2/invited_essays/Danielson/index.htm

Davies, B., & Harré, R. (1990). Positioning: The discursive production of selves. *Journal for the Theory*

of Social Behavior, 20, 43-63.

Davies, P., & Mangan, J. (2005, August). *Recognizing threshold concepts: An exploration of different approaches*. Paper presented at the European Association in Learning and Instruction Conference (EARLI), Nicosia, Cyprus. Retrieved on February 14, 2013 from http://www.staffs.ac.uk/schools/business/iepr/etc/workingpapers/workingpaper19.pdf

Davis, W.E., & Chandler, T.J.L. (1998). Beyond Boyer's scholarship reconsidered: Fundamental change in the university and the socioeconomic systems. *The Journal of Higher Education, 69*(1), 23-64.

Delamont, S. (2002). *Fieldwork in educational settings: Methods, pitfalls and perspectives*. New York, NY: Routledge.

Developing institutional leadership for the scholarship of teaching and learning. (2014). Retrieved on November 24, 2014 from http://international.educ.ubc.ca/SoTL/

DiCicco-Bloom, B., & Crabtree, B.F. (2006). The qualitative research interview. *Medical Education*, 40. 314-321.

Dobbins, K. (2008). Enhancing the scholarship of teaching and learning: A study of factors identified as promoting and hindering the scholarly activities of academics in one faculty. *International Journal for the Scholarship of Teaching and Learning, 2*(2). Retrieved on July 5, 2013 from http://www.georgiasouthern.edu/ijsotl/v2n2/essays_about_sotl/_Dobbins/index.htm

Donnelly, R. (2006). Exploring lecturers' self perception of change in teaching practice. *Teaching in Higher Education, 11*(2), 203-217. doi: 10.1080/13562510500527735

Dreyfus, S.E., & Dreyfus, H.L. (1980, February). *A five stage model of the mental activities involved in directed skill acquisition*. Washington, DC: Storming Media. Retrieved on October 9, 2014 from dtic.mil/cgi-bin/GetTRDoc?AD=ADA084551&Location=U2&doc=GetTRDoc.pdf

Ellsworth, E. (1989). Why doesn't this feel empowering? Working through the repressive myth of

critical pedagogy. *Harvard Educational Review, 59*(3), 297-324.

Ellsworth, E. (1997). *Teaching positions: Difference, pedagogy, and the power of address*. New York, N.Y.: Teachers College Press.

Enhancing Teaching-Learning Project. (2005). *Enhancing teaching-learning environments in undergraduate courses*. Retrieved on July 14, 2013 from www.etl.tla.ed.ac.uk

Entwistle, N. (2008). Threshold concepts and transformative ways of thinking within research into higher education. In R. Land, J.H.F. Meyer, & J. Smith (Eds.), *Threshold concepts within the disciplines* (pp. 21–35). Rotterdam, The Netherlands: Sense Publishers.

Eraut, Michael (1994). *Developing professional knowledge and competence*. London, UK: Falmer Press.

Felten, P. (2013). Principles of good practice in SoTL. *Teaching & Learning Inquiry: The ISSoTL Journal, 1*(1), 121-125. Retrieved on October 25, 2014 from http://www.jstor.org/stable/10.2979/teachlearninqu.1.1.121

Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods, 5*(1), 80-92.

Fink, L. D. (2013) The current status of faculty development internationally. *International Journal for the Scholarship of Teaching and Learning, 7*(2), Article 4. Retrieved on October 6, 2014 from http://digitalcommons.georgiasouthern.edu/ij-sotl/vol7/iss2/4

Flanagan, M.T. (2013). *Threshold concepts: Undergraduate teaching, postgraduate training and professional development: A short introduction and bibliography*. Retrieved February 12, 2013, from http://www.ee.ucl.ac.uk/∼mflanaga/thresholds.html

Flanagan, M. T., & Smith, J. (2008). From playing to understanding: the transformative potential of discourse versus syntax in learning to program. In R. Land, J.H.F. Meyer, & J. Smith (Eds.), *Threshold concepts within the disciplines* (pp. 91-104). Rotterdam, The Netherlands: Sense Publishing.

Flinders, D.J. (1992). In search of ethical guidance: constructing a basis for dialogue. *Qualitative Studies in Education, 5*(2), 101-115.

Gilpin, L. (2011). Scholarship of teaching and learning trades. *International Journal for the Scholarship of Teaching and Learning, 5*(2). Retrieved on July 3, 2013 from http://academics.georgiasouthern.edu/ijsotl/v5n2/invited_essays/Gilpin/index.html

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). Retrieved on March 12, 2011 from http://www.georgiasouthern.edu/ijsotl/v3n2/articles/_GilpinListon/index.htm

Giorgi, A.P., & Giorgi, B.M. (2003). The descriptive phenomenological psychological method. In P.M. Camic, J.E. Rhodes, & L. Yardley (Eds.), *Qualitative research in psychology: Expanding perspectives in methodology and design* (pp. 243-273). Washington, D.C.: American Psychological Association.

Glassick, C. E., Huber, M. T., & Maeroff, G. I. (1997). *Scholarship assessed: Evaluation of the professoriate*. San Francisco, CA: Jossey-Bass.

Gourlay, L. (2009). Threshold practices: Becoming a student through academic literacies. *London Review of Education, 7*(2), 181-192. doi: 10.1080/14748460903003626

Grix, J. (2004). *The foundations of research.* London: Palgrave Macmillan.

Groenewald, T. (2004). A phenomenological research design illustrated. *International Journal of Qualitative Methods, 3*(1). Article 4. Retrieved on August 1, 2013 from http://www.ualberta.ca/~iiqm/backissues/3_1/pdf/groenewald.pdf

Gunzenhauser, M.G. (2006). A moral epistemology of knowing subjects: Theorizing a relational turn for qualitative research. *Qualitative Inquiry, 12*(3), 621-647. doi: 10.1177/1077800405282800

Gurung, R.A.R., & Schwartz, B.M. (2010). Riding the third wave of SoTL. *International Journal for the Scholarship of Teaching and Learning, 4*(2). Retrieved on March 15, 2013 from http://academics.georgiasouthern.edu/ijsotl/v4n2/invited_essays/_GurungSchwartz/index.html

Haigh, N.J. (2012). Sustaining and spreading the positive outcomes of SoTL projects: Issues, insights, and strategies. *International Journal for Academic Development, 17*(1), 19-31. doi: 10.1080/1360144x.2011.586462

Heidegger, M. (1927/1962). *Being and time*. [1962 text trans. J. Macquarrie & E. Robinson]. Oxford, U.K.: Blackwell.

Higher Education Academy (2013). Retrieved on July 1, 2013 from http://www.heacademy.ac.uk/

Hockings, C. (2005). Removing barriers? A study of the conditions affecting teaching innovation. *Teaching in Higher Education, 10*(3), 313-326. doi: 10.1080/13562510500122149

Holloway, M., Alpay, E., & Bull, A. (2010). A quantitative approach to identifying threshold concepts in engineering education. *Engineering Education 2010.* Birmingham, UK: Aston University.

Hubball, H.T. (2014, June). *Developing institutional leadership for the scholarship of curriculum and pedagogical practice within and across the disciplines.* Paper presented at the International Conference for Educational Development, Karolinska Institute, Stockholm, Sweden.

Hubball, H.T., & Clarke, A. (2010). Diverse methodological approaches and considerations for SoTL in higher education. *The Canadian Journal for the Scholarship of Teaching and Learning 1*(1). Retrieved on June 27, 2013 from http://ir.lib.uwo.ca/cjsotl_rcacea/vol1/iss1/

Hubball, H.T., Clarke, A., & Poole, G. (2010). Ten-year reflections on mentoring SoTL research in a research-intensive university. *International Journal for Academic Development, 15*(2), 117-129. doi: 10.1080/13601441003737758

Hubball, H.T., Clarke, A., & Pratt, D. (2013). Fostering scholarly approaches to peer review of teaching in a research-intensive university. In D.J. Salter (Ed.), *Cases on Quality Teaching Practices in Higher Education* (pp. 191-211). Hershey, PA: IGI Global Publishers. doi: 10.4018/978-1-4666-3661-3.

Hubball, H.T., Clarke, A., Webb, A., & Johnson, B. (2015). Developing institutional leadership for the scholarship of teaching and learning: Lessons learned with senior educational leaders in multi-national and multidisciplinary research university settings. *International Journal for University Teaching and Faculty Development, 4*(4).

Hubball, H.T., & Gold, N. (2007). The scholarship of curriculum practice and undergraduate program reform: Integrating theory into practice. *New Directions for Teaching and Learning 2007, 112*, 5-14. doi: 10.1002/tl.293

Hubball, H.T., Lamberson, M., & Kindler, A. (2012). Strategic restructuring of a centre for teaching and learning in a research-intensive university: Institutional engagement in scholarly approaches to curriculum renewal and pedagogical practices. *International Journal for University Teaching and Faculty Development. 3*(2), 95-110. Retrieved on June 27, 2013 from https://www.novapublishers.com/catalog/product_info.php?products_id=40158

Hubball, H.T., Pearson, M., & Clarke, A. (2013). SoTL inquiry in broader curricula and institutional contexts: theoretical underpinnings and emerging trends. Invited peer-reviewed essay for inaugural issue. *International Journal for Inquiry in Teaching and Learning, 1*(1), 41-57. doi: 10.1353/iss.2013.0009

Huber, M.T. (2010). Editorial: CASTL has concluded. Long live the scholarship of teaching and learning. *Arts and Humanities in Higher Education, 9*(1), 5-8.

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

Huber, M.T., & Hutchings, P. (2006). Building the teaching commons. *Change: The magazine of higher learning, 38*(3), 24-31. doi: 10.3200/CHNG.38.3.24-31

Huber, M.T., & Morreale, S.P. (2002). Situating the scholarship of teaching and learning. In M.T. Huber & S.P. Morreale (Eds.). *Disciplinary styles in the scholarship of teaching: exploring common ground* (pp. 1-24). Washington, DC: American Association for Higher Education and the Carnegie Foundation for the Advancement of Teaching.

Humphrey, R., & Simpson, B. (2012). Writes of passage: Writing up qualitative data as a threshold concept in doctoral research. *Teaching in Higher Education, 17*(6), 735-746. doi: 10.1080/13562517.2012

Husserl, E. (1900/1970). *Logical investigations* (Vols. 1 and 2). [1970 text trans. J.N. Findlay]. New York, NY: Humanities Press.

Hutchings, P. (2007). Theory: The elephant in the scholarship of teaching and learning room. *International Journal for the Scholarship of Teaching and Learning, 1*(1). Retrieved on August 8, 2011 from http://www.georgiasouthern.edu/ijsotl/2007_v1n1.htm

Hutchings, P., Huber, M. T., & Ciccone, A. (2011). *The scholarship of teaching and learning*

reconsidered: Institutional integration and impact. San Francisco, CA: Jossey-Bass.

Hutchings, P., & Shulman, L. (1999). The scholarship of teaching: New elaborations, new developments. *Change: The magazine of higher learning, 31*(5), 10-15. doi: 10.1080/00091389909604218

International Society for the Scholarship of Teaching and Learning. (2013). *ISSoTL history*. Retrieved on August 10, 2013 from http://www.issotl.org/history.html

Irvine, N., & Carmichael, P. (2009). Threshold concepts: A point of focus for practitioner research. *Active Learning in Higher Education, 10*(2), 103-119. doi: 10.1177/1469787409104785

Kanuka, H. (2011). Keeping the scholarship in the scholarship of teaching and learning. *International Journal for the Scholarship of Teaching and Learning, 5*(1). Retrieved on August 8, 2011 from http://www.georgiasouthern.ed/ijsotl/v5n1/invited_essays/Kanuka/index.html

Kandlbinder, P., & Peseta, T. (2009). Key concepts in postgraduate certificates in higher education teaching and learning in Australasia and the United Kingdom. *International Journal for Academic Development, 14*(1), 19-31. doi: 10.1080/13601440802659247

Kiley, M. (2009). Identifying threshold concepts and proposing strategies to support doctoral candidates. *Innovations in Education and Teaching International, 46*(3), 293-304. doi: 10.1080/14703290903069001

Kiley, M., & Wisker, G. (2009). Threshold concepts in research education and evidence of threshold crossing. *Higher Education Research and Development, 28*(4), 431-441. doi: 10.1080/07294360903067930

Kinchin, I.M., Cabot, L.B., Kobus, M., & Woolford, M. (2011). Threshold concepts in dental education. *European Journal of Dental Education, 15*, 210-215. doi: 10.1111/j.1600-0579. 2010.00660.x

Koro-Ljungberg, M. (2008). A social constructionist framing of the research interview. In J.A. Holstein & J.F. Gubrium (Eds.). *Handbook of constructionist research* (pp. 429-444). New York, NY: The Guilford Press.

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). Retrieved on July 12, 2011 from http://www.georgiasouthern.edu/ijsotl/2007_v1n1.htm

Land, R. (2012, June). *A closer look at liminality: Incorrigibles and teaching capital*. Paper presented at the NAIRTL Conference, Trinity College Dublin. Retrieved on July 10, 2013 from www.nairtl.ie/index.php?pageID=627

Land, R., Cousin, G., Meyer, J. H. F., & Davies, P. (2005). Threshold concepts and troublesome knowledge (3): Implications for course design and evaluation. In C. Rust (Ed.), *Improving student learning—Equality and diversity. Proceedings of the 12th improving student learning conference* (pp. 53-64). Oxford, UK: Oxford Centre for Staff and Learning Development.

Land, R., & Meyer, J.H.F. (2011). The scalpel and the 'mask': Threshold concepts and surgical education. In H. Fry & R. Kneebone (Eds.), *Surgical education: Theorizing and emerging domain* (pp. 91-106). The Netherlands: Springer. doi: 10.1007/978-94-007-1682-7_6

Land, R., Meyer, J.H.F., & Baillie, C. (2010). Editors' preface: Threshold concepts and transformational learning. In R. Land, J.H.F. Meyer, & C. Baillie (Eds.), *Threshold concepts and transformational learning* (pp. ix–xiv). Rotterdam, The Netherlands: Sense Publishing.

Lapadat, J.C., & Lindsay, A.C. (1999). Transcription in research and practice: From standardization of technique to interpretive positionings. *Qualitative Inquiry, 5*(1), 64-86.

Laverty, S.M. (2003). Hermeneutic phenomenology and phenomenology: A comparison of historical and methodological considerations. *International Journal of Qualitative Methods, 2*(3), 21-35.

Lincoln, Y.S., & Guba, E.G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage Publications.

Lindle, J.C. (2006). Educational leadership. In C.F. Conrad & R.C. Serlin (Eds.), *The Sage handbook for educational research* (pp. 237-251). Thousand Oaks, CA: Sage.

Lopez, K.A., & Willis, D.G. (2004). Descriptive versus interpretive phenomenology: Their contributions to nursing knowledge. *Qualitative Health Research, 14*(5), 726-735. doi: 10.1177/1049732304263638

Lucas, U., & Mladenovic, R. (2007). The potential of threshold concepts: An emerging framework for educational research and practice. *London Review of Education, 5*(3), 237-248. doi: 10.1080/14748460701661294

Lund University. (2013). *Handbook for employees at Lund University*. Retrieved on August 11, 2013 from www5.lu.se/upload/Anstalldsidan/EngAnstalld_vid_LU_2010.pdf

McKinney, K. (2002). *The scholarship of teaching and learning: Current challenges and future visions*. Remarks presented at the ceremony to install the Cross Chair in the Scholarship of Teaching and Learning at Illinois State University. Retrieved March 15, 2013 from http://sotl.illinoisstate.edu/crossChair/sotlFuture.shtml.

McKinney, K. (2012). Increasing the impact of SoTL: Two sometimes neglected opportunities. *International Journal for the Scholarship of Teaching and Learning, 6*(1). Retrieved on October 28, 2014 from http://digitalcommons.georgiasouthern.edu/ij-sotl/vol6/iss1/3/

McKinney, K., & Jarvis, P. (2009). Beyond lines on the CV: Faculty applications of their scholarship of teaching and learning research. *International Journal for the Scholarship of Teaching and Learning, 3(*1). Retrieved on June 19, 2013 from http://academics.georgiasouthern.edu/ijsotl/v3n1/articles/_McKinneyJarvis/index.htm

McLean, J. (2009). Triggering engagement in SoTL through threshold concepts. *International Journal for the Scholarship of Teaching and Learning, 3*(2). Retrieved on June 19, 2013 from http://digitalcommons.georgiasouthern.edu/ij-sotl/vol3/iss2/24/

Meyer, J.H.F. (2012). Variation in student learning as a threshold concept. *Journal of Faculty Development, 26*(3), 8-13.

Meyer, J.H.F., & Land, R. (2003). Threshold concepts and troublesome knowledge: Linkages to ways of thinking and practising within the disciplines. In C. Rust (Ed.), *Improving student learning: Improving student learning theory and practice–Ten years on*. Oxford, U.K.: Oxford Centre for Staff and Learning Development.

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*(3), 373-388. doi: 10.1007/s10734-004-6779-5

Meyer, J.H.F., & Land, R. (2006). Threshold concepts and troublesome knowledge: An introduction. In J.H.F. Meyer & R. Land (Eds.), *Overcoming barriers to student understanding: Threshold concepts and troublesome knowledge* (pp. 3-18). London, UK: Routledge Falmer.

Moore, J.L. (2012). Designing for transfer: A threshold concept. *Journal of Faculty Development, 23*(3), 19-24.

Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.

O'Brien, M. (2008a). Navigating the SoTL landscape: A compass, map and some tools for getting started. *International Journal for the Scholarship of Teaching and Learning, 2*(2). Retrieved on July 8, 2013 from http://www.georgiasouthern.edu/ijsotl/v2n2/essays_about_sotl/_Obrien/index.htm

O'Brien, M. (2008b). Threshold concepts for university teaching and learning: a study of troublesome

knowledge. In R. Land, J.H.F. Meyer, & J. Smith (Eds.), *Threshold concepts within the disciplines* (pp. 289 –305). Rotterdam, The Netherlands: Sense Publishers.

Parker, J. (2008). Theory of SoTL: Translating international perspectives. *Proceedings of the London Scholarship of Teaching and Learning 7th International Conference, City University London, 4*, 171-176.

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

Perkins, D. (2006). Constructivism and troublesome knowledge. In J. H. F. Meyer & R. Land (Eds.), *Overcoming barriers to student learning: Threshold concepts and troublesome knowledge* (pp. 33–47). London, UK: Routledge.

Perkins, D. (2008). Beyond understanding. In R. Land, J.H.F. Meyer, & J. Smith (Eds.), *Threshold concepts within the disciplines* (pp. 3–19). Rotterdam, The Netherlands: Sense Publishers.

Peshkin, A. (1988). In search of subjectivity. One's own. *Educational Researcher, 17*(7), 17-21. Retrieved on November 19, 2014 from http://www.jstor.org/stable/1174381

Peshkin, A. (2000) The nature of interpretation in qualitative research. *Educational Researcher, 29*(9), 5-9. Retrieved on November 19, 2014 from http://www.jstor.org/stable/1177087

Pitts, W., & Ruggirello, R. (2012). Using the e-portfolio to document and evaluate growth in reflective practice: The development and application of a conceptual framework. *International Journal of ePortfolio, 2*(1), 49-74. Retrieved on August 5, 2014 from http://www.theijep.com/past_2_1.cfm

Poole, G. (2010, March 2). The promises and potential of the scholarship of teaching and learning: Moving slowly along a fascinating path. *Academic Matters*. Retrieved on November 24, 2014 from http://www.academicmatters.ca/2010/03/the-promises-and-potential-of-the-scholarship-of-teaching-and-learning-moving-slowly-along-a-fascinating-path/

Poole, G., & Iqbal, I. (2011). An exploration of the scholarly foundations of educational development. In J.C. Smart & M.B. Paulsen (Eds.), *Higher education: Handbook of theory and research 26* (pp. 317-354). doi: 10.1007/978-94-007-0702-3_8

Poole, G., Taylor, L. & Thompson, J. (2007). Using the scholarship of teaching and learning at disciplinary, national and institutional levels to strategically improve the quality of post-secondary education. *International Journal for the Scholarship of Teaching and Learning, 1*(2). Retrieved on October 28, 2014 from http://digitalcommons.georgiasouthern.edu/ij-sotl/vol1/iss2/3/

Potter, M., & Kustra, E. (2011). The relationship between scholarly teaching and SoTL: Models, distinctions, and clarifications. *International Journal for the Scholarship of Teaching and Learning, 5*(1). Retrieved on July 1, 2013 from http://academics.georgiasouthern.edu/ijsotl/v5n1/essays_about_sotl/PotterKustra/index.html

Probert, B. (2014). *Why scholarship matters in higher education* (Discussion paper 2). Sydney, Australia: Australian Government Office for Learning and Teaching.

Quinlan, K.M., Male, S., Baillie, C., Stamboulis, A., Fill, J., & Jaffer, Z. (2013). Methodological challenges in researching threshold concepts: A comparative analysis of three projects. *Higher Education, 66*(5) 585-601. doi: 10.1007/s10734-013-9623-y

Regehr, G. (2010). It's not rocket science: Rethinking our metaphors for research in health professions education. *Medical Education, 44*, 31-39. doi:10.1111/j.1365-2923.2009.03418.x

Richlin, L., & Cox, M.D. (2004). Developing scholarly teaching and the scholarship of teaching and learning through faculty development communities. *New Directions for Teaching and Learning, 97*, 127-135.

Rowbottom, D.P. (2007). Demystifying threshold concepts. *Journal of Philosophy of Education, 41*(2), 263-270. doi: 10.1111/j.1467-9752-2007.00554.x

Rubin, H.J., & Rubin, I.S. (2005). *Qualitative interviewing: The art of hearing data* (2nd ed.). Thousand Oaks, CA: Sage.

Savin-Baden, M. (2006). Disjunction as a form of troublesome knowledge in problem-based learning. In J.H.F. Meyer & R. Land (Eds.), *Overcoming barriers to student understanding: Threshold concepts and troublesome knowledge* (pp. 160-172). London, UK: Routledge Falmer.

Seidman, I. (2006). *Interviewing as qualitative research: A guide for researchers in education and the social sciences* (3rd edition). New York, NY: Teachers College Press.

Shulman, L.S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review, 57*(1), 1- 22.

Shulman, L.S. (1993). Teaching as community property: Putting an end to pedagogical solitude. *Change: The magazine of higher education, 25*(6), 6-7. doi: 10.1080/00091383.1993.9938465

Shulman, L.S. (1999). Taking learning seriously. *Change: The magazine of higher education, 31*(4), 10-17. DOI: 10.1080/00091389909602695

Shulman, L.S. (2000). Inventing the future. In P. Hutchings (Ed.), *Opening lines: Approaches to the scholarship of teaching and learning.* Retrieved on July 3, 2013 from http://www.carnegiefoundation.org/elibrary/inventing-future-opening-lines-approaches-scholarship-teaching-and-learning

Simmons, N. (2011). Caught with their constructs down? Teaching development in the pre-tenure years. *International Journal for Academic Development, 16*(3), 229-241. doi: 10.1080/1360144X.2011.596706

Smythe, W.E., & Murray, M.J. (2000). Owning the story: Ethical considerations in narrative research. *Ethics and Behaviour, 10*(4), 311-336. doi: 10.1207/S15327019EB1004_1

Stierer, B., & Antoniou, M. (2004). Are there distinctive methodologies for pedagogic research in higher education? *Teaching in Higher Education, 9*(3), 275-285. doi: 10.1080/1356251042000216606

Svinicki, M.D. (2012). "Who is entitled to do SoTL?" *International Journal for the Scholarship of Teaching and Learning, 6*(2). Retrieved December 15, 2012, from http://www.georgiasouthern.edu/ijsotl/v6n2/invited_essays/Svinicki/index.htm

The University of Auckland. (2013). *Post Graduate Certificate in Academic Practice*. Retrieved on August 11, 2013 from http://www.clear.auckland.ac.nz/index.php?p=pgcert

The University of British Columbia. (2013a). *Agreement on conditions of appointment for faculty.* Faculty Relations, Human Resources. Retrieved July 3, 2013 from http://www.hr.ubc.ca/faculty-relations/collective-agreements/appointment-faculty/#3.

The University of British Columbia. (2013b). *Guide to reappointment, promotion and tenure procedures at UBC for 2012/13.* Faculty Relations, Human Resources. Retrieved June 19, 2013 from http://www.hr.ubc.ca/faculty-relations/tenure-promotion-reappointment-confirmation/tenure-promotion-reappointment-for-faculty-members/.

The University of British Columbia (2010). *Place and promise: The UBC Plan.* Retrieved June 19, 2013 from http://strategicplan.ubc.ca/.

The University of Melbourne – Centre for the Study of Higher Education. (2013). *Graduate certificate in university teaching*. Retrieved on August 11, 2013 from http://www.cshe.unimelb.edu.au/prof_dev/uni_teachers/gcut/index.html.

The University of Southern Australia. (2012). *Graduate certificate in education (academic practice).* Retrieved on July 1, 2013 from http://w3.unisa.edu.au/academicdevelopment/what/gce.asp.

Tracy, S. (2010). Qualitative quality: Eight 'big tent' criteria for excellent qualitative research. *Qualitative Inquiry, 16*(10), 837-851. doi: 10.1177/1077800410383121

Trafford, V., & Leshem, S. (2009). Doctorateness as a threshold concept. *Innovations in Education and Teaching International, 46*(3), 305-316. doi: 10.1080/14703290903069027

Transforming Perspectives Project. (2006). Retrieved July 14, 2013 from http://www.caret.cam.ac.uk/tel/.

Trigwell, K. (2013). Evidence of the impact of scholarship of teaching and learning purposes. *Teaching & Learning Inquiry: The ISSoTL Journal, 1*(1), 95-105. Retrieved on February 20, 2014 from http://www/jstor.org/stable/10.2979/teachlearninqu.1.1.95

Turner, V.W. (1969) *The ritual process: Structure and anti-structure*. Chicago, IL: Aldine Publishing Co.

University College Dublin. (2013). *Academic development*. Retrieved August 11, 2013 from http://www.ucd.ie/teaching/academicdevelopment/.

University of Nottingham. (2013). *PGCHE: Post Graduate Certificate in Higher Education*. Retrieved on August 11, 2013 from http://www.nottingham.ac.uk/teaching/teaching/enhancement/pgche.aspx/.

Usher, A. (2014, May 28). Permeability. *The Higher Education Strategy Associates*. Retrieved from http:// http://higheredstrategy.com/blog

van Gennep, A. (1960). *The rites of passage* (reprint). Chicago, IL: University of Chicago Press.

van Manen, M. (1997). *Researching lived experience: Human science for an action sensitive pedagogy* (2nd ed.). Albany, NY: State University of New York Press.

Walker, G. (2013). A cognitive approach to threshold concepts. *Higher Education, 65*(2), 247-263. doi: 10.1007/s10734-012-9541-4

Webb, A., Wong, T., & Hubball, H.T. (2013). Professional development for adjunct teaching faculty in a research-intensive university: Engagement in scholarly approaches to teaching and learning. *International Journal for Teaching and Learning in Higher Education*, *25*(2), 231-238.

Webb, A. (2014a, June). *Threshold concepts and the scholarship of teaching and learning*. Paper presented at Transforming our Learning Experiences, Society for Teaching and Learning in Higher Education, Queen's University, Kingston, Canada.

Webb, A. (2014b, July). *Threshold concepts and the scholarship of teaching and learning: negotiating barriers in a faculty certificate program*. Paper presented at the Fifth International Biennial Threshold Concepts Conference, Threshold Concepts in Practice, Durham University, Durham, UK.

Weimer, M. (2008). Positioning scholarly work on teaching and learning. *International Journal for the Scholarship of Teaching and Learning*, *2*(1). Retrieved September 22, 2014 from http://digitalcommons.georgiasouthern.edu/ij-sotl/vol2/iss1/4

Wertz, F.J., Charmaz, K., McMullen, L.M., Josselson, R., Anderson, R., & McSpadden, E. (2011). *Five ways of doing qualitative analysis*. New York, NY: The Guilford Press.

Yip, J., & Raelin, J. A. (2012). Threshold concepts and modalities for teaching leadership practices. *Management Learning*, *43*(3), 333-354. doi: 10.1177/1350507611422476

Young, P. (2006). Out of balance: Lecturer's perceptions of differential status and rewards in relation to teaching and research. *Teaching in Higher Education, 11*(2), 191-202. doi: 10.1080/13562510500527727

Appendices

Appendix A

Appendix A contains the letters of contact and consent forms.

A.1 Letter of Contact (2013-2014 cohort)

a place of mind

Department of Curriculum and Pedagogy
Faculty of Education
University of British Columbia
2125 Main Mall, Vancouver, B.C., V6T 1Z4

September 13, 2013

Dear Colleague,

My name is Andrea Webb and I am a PhD candidate in the Faculty of Education, Department of Curriculum and Pedagogy, working with Dr. Harry Hubball and Dr. Anthony Clarke. As part of my requirements for completion of the PhD, I am interested in conducting a research study on Threshold Concepts in the Scholarship of Teaching and Learning.

I was part of a SoTL FCP cohort in 2008-2010. It was the most influential professional development of my career. While I know that I did learn a great deal as a result of this experience, in my current position as an instructor, I still see concepts and ideas that cause participants to get stuck. Through the study, I hope to add to the curriculum and pedagogy of SoTL in higher education and increase its adoption across disciplinary lines.

Therefore, I would like to conduct a study focused on the experience of educational leaders who are engaging in the Scholarship of Teaching and Learning in order to explore issues pertinent to professional development. In order to do this, with your permission, I will engage with you, as a participant observer, in the SoTL FCP over the course of the eight sessions.

Should you choose to participate in the study, you will be involved in sharing your experience of induction into SoTL through the class sessions. I will then invite you to participate in two interviews, conducted in November/December and March/April, of up to 60 minutes each. These interviews will explore your experiences in the SoTL FCP. In addition, your SoTL portfolio will be analyzed for evidence of threshold concepts.

Attached to this letter is a consent form, which outlines the study details. Taking part in the study is completely up to you. You have the right to refuse to participate in the study. If you decide to take part, you may choose to pull out of the study at any time without giving a reason and without a negative impact on your participation in the SoTL FCP.

If you have any questions or desire further information with respect to this study, please contact myself [at (XXX) XXX-XXXX or XXX@XXX.XX] or the Principal Investigator, Dr. Harry Hubball [at (XXX) XXX-XXXX or XXX@XXX.XX] or the co-investigator, Dr. Anthony Clarke [at (XXX) XXX-XXXX or XXX@XXX.XX].

Thank you for your time,

Andrea Webb
PhD Candidate
University of British Columbia

A.2 Letter of Contact (Past Graduates)

a place of mind

Department of Curriculum and Pedagogy
Faculty of Education
University of British Columbia
2125 Main Mall, Vancouver, B.C., V6T 1Z4

Letter of Contact

Investigating threshold concepts in the scholarship of teaching and learning with educational leaders at a research-intensive university

Dear Colleague,

As a past participant in the UBC Faculty Certificate Program in the Scholarship of Teaching and Learning, we believe that you are part of a collection of exceptional educational leaders at UBC. As such, you are being invited to take part in a research study investigating threshold concepts in the scholarship of teaching and learning (SoTL). This letter provides the information that you need in order to decide whether or not to participate in the study.

This research is aimed at improving the quality of SoTL programs for educational leaders in order to support the adoption of SoTL in higher education across disciplinary lines. Providing the opportunity to reflect on your SoTL journey, your participation in this study will help the research team understand more about how educational leaders engage with SoTL and to develop theories that may affect future program development.

If you agree to take part in the study, you will be asked to complete a questionnaire pertaining to your learning while in the Faculty Certificate Program on the Scholarship of Teaching and Learning. The survey should take no more than 30 minutes to complete.

http://fluidsurveys.com/surveys/andreaswebb/threshold-concepts-in-sotl/

Should you provide your contact information, you may be asked to participate in an interview, not lasting more than sixty minutes and focused on the same themes as the questionnaire.

The results of this study will be reported in a graduate dissertation, which is a public document, and may also be published in journal articles and books. As well, participants may request a copy of the final paper in person, by phone, or by email from the Principal Investigator or the Co-Investigators using contact details provided below.

Your confidentiality will be respected. Survey data will be stored on the researcher's password-protected computer. All contact information will be completely confidential. Any electronic documents, such as copies of emails, will be saved in password-protected accounts only and confidential information will not be collected or exchanged via email.
Beyond this research project, the data may be reviewed for future iterations of the SoTL FCP, but it will always be anonymized to ensure confidentiality.

Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time without negative outcomes. If you choose to withdraw from the study at any point, all data pertaining to your participation will be destroyed.

Submission of the survey indicates that you have read the above information and are prepared to participate in the interviews as described above. Submission also indicates that you have received a copy of the letter of contact for your own records and that you consent to participate in this study.

If you have any questions or would like further information with respect to this study, please contact any member of the research team.

If you have any concerns about your treatment or rights as a research subject and/or your experiences while participating in this study, you may contact the Research Subject Information Line at the UBC Office of Research Services at (604) 822-8598 or if long distance email RSIL@ors.ubc.ca or call toll free 1-877-822-8598.

Research Contact: Andrea Webb (Ph.D. Candidate)
Department of Curriculum and Pedagogy, UBC
Telephone number: (XXX) XXX-XXXX
XXX@XXX.XX

Principal Investigator: Dr. Harry Hubball
Department of Curriculum and Pedagogy, UBC
Telephone number: (XXX) XXX-XXXX
XXX@XXX.XX

Co-Investigators: Dr. Anthony Clarke
Department of Curriculum and Pedagogy, UBC
Telephone number: (XXX) XXX-XXXX
XXX@XXX.XX

A.3 Consent Form (Classroom Observation and Portfolio)

a place of mind

Department of Curriculum and Pedagogy
Faculty of Education
University of British Columbia
2125 Main Mall, Vancouver, B.C., V6T 1Z4

Classroom Observation & Portfolio – Consent form

Investigating threshold concepts in the scholarship of teaching and learning with educational leaders at a research-intensive university
BREB Certificate H13-01299

Principal Investigator: Dr. Harry Hubball
Department of Curriculum and Pedagogy, UBC
Telephone number: (XXX) XXX-XXXX
XXX@XXX.XX

Co-Investigators: Andrea Webb (Ph.D. candidate)
Department of Curriculum and Pedagogy, UBC
Telephone number: (XXX) XXX-XXXX
XXX@XXX.XX

Dr. Anthony Clarke
Department of Curriculum and Pedagogy, UBC
Telephone number: (XXX) XXX-XXXX
XXX@XXX.XX

This research will fulfill a component of the requirements for the degree of PhD in the form of a dissertation, which is a public document.

Purpose

As a participant in the Faculty Certificate Program in the Scholarship of Teaching and Learning (SoTL FCP) at UBC, you have/had the opportunity to experience a unique program in educational leadership. This study aims to explore the threshold concepts in the scholarship of teaching and learning (SoTL). From these threshold concepts, we want to find future possibilities for SoTL programs for educational leaders in order to support the adoption of SoTL in higher education across disciplinary lines.

Study Procedures

As part of your involvement with the UBC Faculty Certificate Program in the Scholarship of Teaching and Learning, you will be involved in eight class sessions not longer than three hours. The researcher will act as participant observer in these sessions. During this time you will be

invited to share your thoughts on SoTL with the researcher, instructor, and cohort members. The sessions may be videotaped for reference of the researcher.

If you consent to join the study, your SoTL portfolio will be analyzed for teaching scholarship. The analysis will be guided by questions regarding your perceptions about the program, your understanding of SoTL, the adoption of SoTL within your practice, and your goals for teaching scholarship.

In certain circumstances, if the researchers require further clarification or information, you may be asked to complete an interview, not lasting more than sixty minutes focused on the same themes.

Potential Risks of the Study

We do not think there is anything in this study that could harm you or be bad for you. However, you may be asked questions that could make you feel uncomfortable or may bring up unpleasant memories. Please let the researcher know if you have any concerns or feel free to stop or pause the interview at any time.

All identifying information such as names and departments will be removed from any transcripts produced as well as the final paper. Pseudonyms will be used in place of names of people and physical descriptions of individuals will be altered or removed.

Potential Benefits of the Study

Although you may or may not benefit directly from participating in this study, several advantages may exist:

1. You will be given the opportunity to reflect on your experiences as a SoTL scholar.
2. In sharing your thoughts, you may feel your perspective on teaching and learning is changed.
3. You will be offered an opportunity to read the final paper written out of the research. If you would like a copy of the final paper, you may request it in person, by phone, or by email from the researchers using contact details provided above.

Benefits to SoTL programs and/or future SoTL scholars may also include:

1. This study may highlight potential benefits of SoTL for educational leaders and better serve the needs of teaching and learning in higher education.
2. This study may offer evidence as support for a change to current practices within SoTL programs, therefore increasing support for educational leaders.
3. The results of this study could provide information about the specific areas in which changes to SoTL programs may be needed.

Measures to Maintain Confidentiality

Your confidentiality will be respected. In addition to the practices outlined in the Potential Risks section above, other methods will be used to ensure the identity of participants remains strictly confidential.

- Data, including digital audio and video files, will be stored on the researcher's password-protected computer.
- Video and/or audio tapes (hard copies) will be stored in a locked filing cabinet in the researcher's office for a period of at least five years. After five years, the files will be destroyed through demagnetization, or disk cleaning.
- All hard copies, video, and audiotapes will be accessed and retrieved by the research team only. The research team will only use audio and video recordings for the purposes of transcription and analysis.
- Any electronic documents, such as copies of emails, will be saved in password-protected accounts only and confidential information will not be collected or exchanged via email.
- Beyond this research project, the data may be reviewed for future iterations of the SoTL FCP, but it will always be anonymized to ensure confidentiality of participants.

Contact Information about the study

If you have any questions or would like further information with respect to this study, please contact any member of the research team. The names and contact information is listed at the top of the first page of this form.

Contact for concerns about the rights of research subjects

If you have any concerns about your treatment or rights as a research participant and/or your experiences while participating in this study, you may contact the Research Subject Information Line at the UBC Office of Research Services at (604) 822-8598 or if long distance email RSIL@ors.ubc.ca or call toll free 1-877-822-8598.

Consent

Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time without negative outcomes. If you choose to withdraw from the study at any point, all data pertaining to your participation will be destroyed.

Your signature below indicates that you have read the above information and are prepared to participate in the interviews as described above.

Your signature also indicates that you have received a copy of this consent form for your own records and that you consent to participate in this study.

Participant Signature Date

Printed Name of Participant Signing Above

A.4 Consent Form (Interviews)

a place of mind

Department of Curriculum and Pedagogy
Faculty of Education
University of British Columbia
2125 Main Mall, Vancouver, B.C., V6T 1Z4

Interviews – Consent form

Investigating threshold concepts in the scholarship of teaching and learning with educational leaders at a research-intensive university
BREB Certificate H13-01299

Principal Investigator: Dr. Harry Hubball
Department of Curriculum and Pedagogy, UBC
Telephone number: (XXX) XXX-XXXX
XXX@XXX.XX

Co-Investigators: Andrea Webb (Ph.D. candidate)
Department of Curriculum and Pedagogy, UBC
Telephone number: (XXX) XXX-XXXX
XXX@XXX.XX

Dr. Anthony Clarke
Department of Curriculum and Pedagogy, UBC
Telephone number: (XXX) XXX-XXXX
XXX@XXX.XX

This research will fulfill a component of the requirements for the degree of PhD in the form of a dissertation, which is a public document.

Purpose

As a participant in the Faculty Certificate Program in the Scholarship of Teaching and Learning (SoTL FCP) at UBC, you have/had the opportunity to experience a unique program in educational leadership. This study aims to explore the threshold concepts in the scholarship of teaching and learning (SoTL). From these threshold concepts, we want to find future possibilities for SoTL programs for educational leaders in order to support the adoption of SoTL in higher education across disciplinary lines.

Study Procedures

If you are willing, you may be interviewed two (2) times in a semi-structured interview not longer than sixty minutes. During this time, you will be invited to share your scholarship of teaching and learning experiences and answer questions related to your professional development. Your answers will be audio and/or videotaped for reference of the researchers. Interviews will be conducted one-on-one in a private location of your choosing, such as in an your office, an unoccupied classroom at UBC, at your home, a local café, etc. A transcriptionist may be hired to transcribe the interviews. Transcripts of the interview will be returned to you for confirmation.

In certain circumstances, if the researcher requires further clarification or information from you, you may be asked to complete one additional interview, not lasting more than sixty minutes.

Potential Risks of the Study

We do not think there is anything in this study that could harm you or be bad for you. However, you may be asked questions that could make you feel uncomfortable or may bring up unpleasant memories. Please let the researcher know if you have any concerns or feel free to stop or pause the interview at any time.

All identifying information such as names and departments will be removed from any transcripts produced as well as the final paper. Pseudonyms will be used in place of names of people and physical descriptions of individuals will be altered or removed.

Potential Benefits of the Study

Although you may or may not benefit directly from participating in this study, several advantages may exist:

4. You will be given the opportunity to reflect on your experiences as a SoTL scholar.
5. In sharing your thoughts, you may feel your perspective on teaching and learning is changed.
6. You will be offered an opportunity to read the transcripts and the final paper written out of the research. If you would like a copy of the transcripts and/or final paper, you may request it in person, by phone, or by email from the research team using contact details provided above and a copy will be provided.

Benefits to SoTL programs and/or future SoTL scholars may also include:

4. This study may highlight potential benefits of SoTL for educational leaders and better serve the needs of teaching and learning in higher education.
5. This study may offer evidence as support for a change to current practices within SoTL programs, therefore increasing support for educational leaders.

6. The results of this study could provide information about the specific areas in which changes to SoTL programs may be needed.

Measures to Maintain Confidentiality

In addition to the practices outlined in the Potential Risks section above, other methods will be used to ensure the identity of participants remains strictly confidential.

- Data, including digital audio and video files, will be stored on the researcher's password-protected computer.
- Video and/or audio tapes (hard copies) will be stored in a locked filing cabinet in the researcher's office for a period of at least five years. After five years, the files will be destroyed through demagnetization, or disk cleaning.
- All hard copies, video, and audiotapes will be accessed and retrieved by the research team only.
- Any electronic documents, such as copies of emails, will be saved in password-protected accounts only and confidential information will not be collected or exchanged via email.
- The research team will only use audio and video recordings for the purposes of transcription and analysis.
- Beyond this research project, the data may be reviewed for future iterations of the SoTL FCP, but it will always be anonymized to ensure confidentiality of participants.

Contact Information about the study

If you have any questions or would like further information with respect to this study, please contact any member of the research team. The names and contact information is listed at the top of the first page of this form.

Contact for concerns about the rights of research subjects

If you have any concerns about your treatment or rights as a research subject and/or your experiences while participating in this study, you may contact the Research Subject Information Line at the UBC Office of Research Services at (604) 822-8598 or if long distance email RSIL@ors.ubc.ca or call toll free 1-877-822-8598.

Consent

Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time without negative outcomes. If you choose to withdraw from the study at any point, all data pertaining to your participation will be destroyed.

Your signature below indicates that you have read the above information and are prepared to participate in the interviews as described above.

Your signature also indicates that you have received a copy of this consent form for your own records and that you consent to participate in this study.

Participant Signature Date

Printed Name of Participant Signing Above

Appendix B

Appendix B outlines the timeline for data collection and the tools that were developed for data collection

B.1 Timeline of Data Collection

September 13, 2013	Participant Observation #1 (FN 1)
October 11, 2013	Participant Observation #2 (FN 2)
October 21, 2013	Interview #1 with Med 1
October 31, 2013	Interview #1 with For 1
November 1, 2013	Participant Observation #3 (FN 3)
November 1, 2013	Interview #1 with Med 2
November 5, 2013	Interview #1 with Med 3
November 7, 2013	Questionnaire sent to Past Graduates
November 29, 2013	Participant Observation #4 (FN 4)
December 11, 2013	Interview #1 with Eng 1
December 13, 2013	Interview with QR #32
December 16, 2013	Interview with QR #13
December 31, 2013	Questionnaire closed
January 10, 2014	Participant Observation #5 (FN 5)
January 15, 2014	Interview with QR #25
January 28, 2014	Interview with QR #6
January 29, 2104	Interview #1 with Sci 1
January 29, 2014	Interview #1 with Sci 2
January 30, 2014	Interview with QR #31
January 31, 2014	Participant Observation #6 (FN 6)
January 31, 2014	Interview #1 with Med 4
February 3, 2014	Interview #1 with Sci 3
February 4, 2014	Interview #1 with Ed 1
February 4, 2014	Interview with QR #2
February 5, 2014	Interview with QR #8
February 11, 2014	Interview with QR #19
February 14, 2014	Interview with QR #24
February 14, 2014	Interview With QR #14
February 18, 2014	Interview with QR #12
February 19, 2014	Interview with QR #30
February 21, 2014	Participant Observation #7 (FN 7)
February 24, 2014	Interview with QR #9
February 25, 2014	Interview with QR #22
February 25, 2014	Interview with QR #17
February 26, 2014	Interview with QR #4

February 26, 2014	Interview with QR #20
March 14, 2014	Participant Observation #8 (FN 8)
April 16, 2014	Interview #2 with Med 1
April 17, 2014	Interview #2 with Sci 3
April 22, 2014	Interview #2 with Med 2
April 22, 2014	Interview #2 with Sci 1
April 23, 2014	Interview #1 with LFS 1
April 23, 2014	Interview #2 with Sci 2
May 2, 2014	Interview #2 with For 1
May 2, 2014	Interview #2 with Med 3
May 9, 2014	Interview #2 with Eng 1
May 31, 2014	Interview #2 with Med 4

B.2 Online Questionnaire

Administrator Toolbar Jump to page: Page 1 Go

0%

Threshold Concepts in SoTL

Thank you for considering completion of this survey.

As a past participant in the UBC Faculty Certificate Program in the Scholarship of Teaching and Learning (SoTL FCP), you are being invited to take part in this research study.

The purpose of this research is to investigate threshold concepts in the scholarship of teaching and learning (SoTL) with educational leaders at a research-intensive university. From these threshold concepts, this project aims to find future possibilities for SoTL programs for educational leaders in order to support the adoption of SoTL in higher education across disciplinary lines.

If you agree to take part in the study, the survey should take no more than 30 minutes to complete.

Your confidentiality will be respected. Any identifying information will not be released.
If you have any questions or would like further information with respect to this study, please contact the Principal Investigator, Dr. Harry Hubball at (604) 822-9218 or harry.hubball@ubc.ca, or the Co-Investigators, Andrea Webb at (604) 828-8176 or andrea.webb@ubc.ca or Dr. Anthony Clarke at (604) 822-2003 or anthony.clarke@ubc.ca.

If you have any concerns about your treatment or rights as a research subject and/or your experiences while participating in this study, you may contact the Research Subject Information Line at the UBC Office of Research Services at (604) 822-8598 or if long distance email RSIL@ors.ubc.ca or call toll free 1-877-822-8598.

Your participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time without negative outcomes. If you choose to withdraw from the study at any point, all data pertaining to your participation will be destroyed.

Submission of the survey indicates that you have read the above information and are prepared to participate in the interviews as described above. Submission also indicates that you have received a copy of the consent form for your own records and that you consent to participate in this study.

With which faculty or unit is your primary appointment?

- ○ Applied Sciences
- ○ Arts
- ○ Commerce
- ○ Dentistry
- ○ Education
- ○ Forestry
- ○ Graduate Studies
- ○ Instructional Services
- ○ Land and Food Systems
- ○ Law

- Pharmaceutical Sciences
- Science
- Other, please specify...

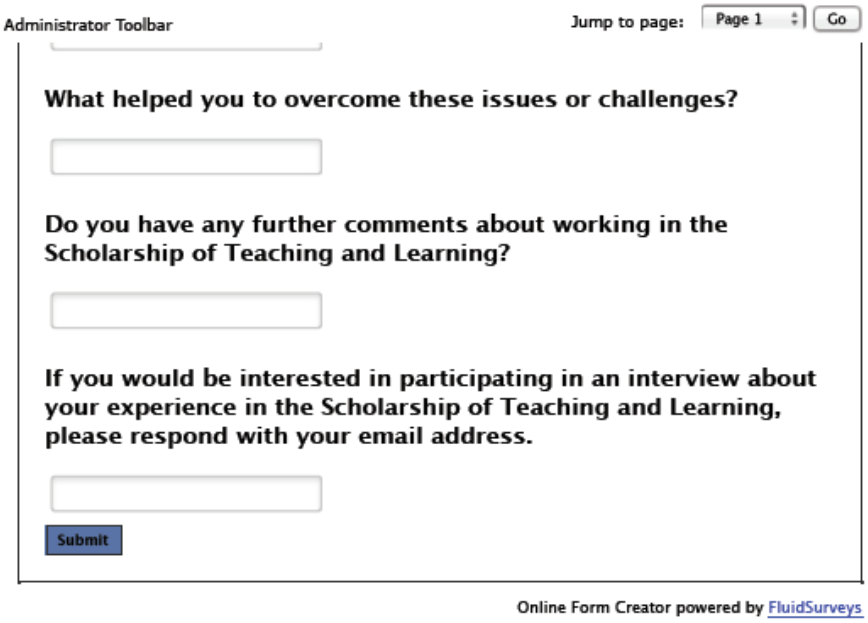
What year did you complete the UBC Faculty Certificate Program in the Scholarship of Teaching and Learning?

- 1999
- 2000
- 2001
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- Not yet completed

What are five (5) ideas or concepts about the Scholarship of Teaching and Learning that are the most important to you?

What readings, lectures, discussions, etc. helped you understand these key concepts or ideas? If none, please state that.

What topics or themes were challenging for you to learn? If none, please state that.


Administrator Toolbar
Jump to page:
Page 1
Go
What helped you to overcome these issues or challenges?
Do you have any further comments about working in the Scholarship of Teaching and Learning?
If you would be interested in participating in an interview about your experience in the Scholarship of Teaching and Learning, please respond with your email address.
Submit
Online Form Creator powered by FluidSurveys

B.3 Participant Observation Protocol (version 2)

Date: Setting: (If necessary, also see attached classroom map) Comments:		
Observational Notes	Theoretical Notes	Methodological Notes

B.4 Interview Protocol (2013-2014 Cohort)

Date:
Location:
Interviewee:

1) Welcome
2) Goal – examine how the FCP participants have/do experienced aspects of SoTL.
3) Format – open-ended interviews with few guiding questions.
4) Review consent
5) Start recorder

Interview Questions

Position -

Length of time in position -

Why UBC SoTL FCP? Why now?

What would you consider to be the key ideas or concepts in the SoTL?

Has your understanding of SoTL developed? What do you think has lead to this understanding developed? Were there any readings or tasks that have helped to facilitate that understanding?

What topics and or themes have been challenging for you?
Why were they challenging?
What helped you overcome these challenges?

Has the SoTL had any impact on your pedagogical or curricular practice?

How have you made changes or improvements as a result of your SoTL work? Or the work of others?

What prevents you from or what are the barriers to doing more application of any SoTL results to your teaching and to improve student learning?

What would help you do additional application of SoTL results to your teaching and student learning?

SUMMARY THOUGHTS –

Probes (for depth) – Why do you think that is so?

Follow up (for richness) - Key words, ideas, and themes

B.5 Interview Protocol (Past Graduates)

Date:
Location:
Interviewee:

1) Welcome
2) Goal – examine how the FCP participants have/do experienced aspects of SoTL.
3) Format – open-ended interviews with few guiding questions.
4) Review consent
5) Start recorder

How have you been influenced or affected by the UBC SoTL FCP experience?

- Has the SoTL program increased your confidence as a researcher in this area? Do you feel like you could continue in SoTL research? (Humphrey & Simpson, 2012)
- Please describe, specifically, one change or innovation or improvement, etc. you made to improve teaching and learning that was based on the results or implications from your SoTL FCP participation.

What does SoTL mean to you? (How would you describe your mental model of SoTL?)

- When you think of scholarship in your field, how does SoTL fit in with that concept? (How would you describe your mental model of scholarship?)

What do you consider to be the key concepts in SoTL?

When you were learning about SoTL, were there any concepts or ideas that you found particularly challenging?

Thinking about the portfolio, was there a part of the portfolio that stood out as particularly useful or challenging?

- Could you tell me about your experience of designing and presenting your capstone project?
- What was it like for you to watch others' presentations? (Experiencing variation)