# BECOMING A SOTL SCHOLAR

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# Becoming a SoTL Scholar

Edited by Janice Miller-Young and Nancy L. Chick



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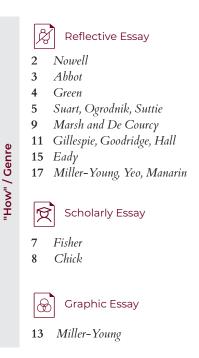
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#### CHAPTER 1

### DEVELOPING SUSTAINED SOTL JOURNEYS AND IDENTITIES

Janice Miller-Young, University of Alberta, Canada Nancy L. Chick, Rollins College, US

The scholarship of teaching and learning (SoTL), the multidisciplinary field that focuses on systematic investigation in teaching and learning, is now over thirty years old (Boyer 1990). No longer just a grassroots movement of individual faculty committed to taking teaching and learning seriously, SoTL has become professionalized. It is supported by an international professional organization and various national, regional, and disciplinary organizations. It is the focus of multiple peer-reviewed journals, some with "SoTL" named in their titles, and at least one publisher has a book series explicitly dedicated to SoTL. It is the scholarly work of many teaching stream faculty lines, and it has been written into many (but not enough) tenure and promotion guidelines for traditional faculty. Credentials and graduate courses focused on SoTL have emerged, and research centers within faculties and institutions have been established. Despite all of these hallmarks of professionalization, the processes for becoming a professional in the field remain idiosyncratic. We believe that it's time to map out what it looks like and how to get there by design.

Within the literature on SoTL more broadly, few sources explore careers in SoTL. The topic of greatest interest seems to be if and how institutions recognize and reward SoTL, typically within specific institutions (Huber 2002; Kern et al. 2015; Timmermans and Ellis 2016; Gansemer–Topf et al. 2022) or for specific groups of academics (Simmons et al. 2021). A notable exception is the work of Mary Taylor Huber, who has explicitly studied those who have

forged SoTL careers. In her 2001 article "Balancing Acts: Designing Careers around the Scholarship of Teaching and Learning" and then her 2004 book, Balancing Acts: The Scholarship of Teaching and Learning in Academic Careers, she focuses on four case studies of successful SoTL scholars who've achieved some status on their campuses and in the field more broadly. Notably, all four gained success at research universities, which Huber chose to "illustrate most dramatically the tensions inherent in efforts that do not neatly fit into the conventional categories of academic work" (Huber 2004, 8). She further describes the four as "not typical scholars of teaching and learning" but instead "extraordinary cases" with "national and even international recognition" (7). Indeed, the stories of Dan Bernstein in psychology, Randy Bass in English, Brian Coppola in chemistry, and Sheri Sheppard in engineering reinforce the notion that-at least in 2004-"we should not kid ourselves": pursuit of a SoTL-infused career is "probably" for those who are "not just very good but distinctively excellent," as Lee Shulman cautions in the foreword to his book (2004, ix).

This focus on a few exceptional cases made sense in 2004 because, as Huber observes in her introduction, "Scholarship' . . . is always historically circumscribed and defined" (2). Twenty years ago, we needed "Pioneers" and "Pathfinders" to show us what careers in SoTL might look like (Huber 2004, 2019; Shulman 2004, viii), but what has changed in the twenty years since then? Huber provides some insight in her 2019 article "Citizens of the Teaching Commons: The Rise of SoTL Among US Professors of the Year, 1981-2015." Chronicling the history of "the only continuous national award for college and university teaching in the United States" (2019, 155), Huber analyzes the nominations and award material to trace the trajectory of SoTL in these awards-or more precisely, in the award winners. From the 119 nominees in its first year to as many as 500 nominations in its final years, there was "a steady increase" in SoTL engagement by the winners, rising "from nil in the 1980s to around 10 percent in the 1990s, 25 percent in the 2000s, and 75 percent in the 2010s" (163). Here, she offers additional reasons for

featuring exceptional cases: since they were nominated by upperlevel administrators on their campuses and adjudicated by multiple panels of judges, they "represent a collective sense within the larger higher education community" and, according to the program's goals, "provide models to which others can aspire" (155).

A 2017 study by Jeannie Billot, Susan Rowland, Brent Carnell, Cheryl Amundsen, and Tamela Evans also provides insight on the models of those who have successfully integrated SoTL into their careers. They interviewed twenty-three "experienced SoTL researchers" (defined as "at least three years of experience in teaching and learning research") to explore how they'd established credibility in SoTL: what it means, how they developed it, and barriers they navigated (2017, 104–05). Billot and colleagues helpfully catalog a range of "indicators of credibility in SoTL" and include recommendations for developing it for one's own work and for SoTL itself (107–09). This study is a demonstration of the progress of SoTL as a field stable enough to support more people who might want to stay awhile.

At the same time, others have been critical of the field's professionalization. In "Recovering the Heart of SoTL: Inquiring into Teaching and Learning 'as if the World Mattered'" (2023), Peter Felten and Johan Geertsema are concerned that the "rapid professionalization of SoTL" (5) will follow the trajectory of other professionalized disciplines by discouraging the diversity of approaches and practices that characterized the original vision of the field. More specifically, they draw on Edward Said to describe "four pressures of professionalization" they see already at play: "narrow specialization, certification of expertise, co-option by power, and intellectual conformity" (Felten and Geertsema 2023, 1). Indeed, they describe a gradual homogenization of SoTL toward a narrow set of inquiries seeking "what works" (Hutchings 2000, 4) about cognitive aspects of student learning and discipline-specific issues. We share these concerns. We also see a subtle but significant byproduct of this dark side of professionalization in citation practices in SoTL (Chick et al. 2021). The pressure to restrict who's considered an expert means that

SoTL practitioners will continue to cite by reputation of the author and canonicity of the text, a practice with direct implications on "who's read, who's published, who's funded, who's tenured, who's employed, and who's heard" (Chick et al. 2021, 2). However, in the end, while we aren't Pollyannas, we are hopeful. In the ongoing vigilance by scholars like Felten and Geertsema—and many others who push back against narrowing SoTL's borders, including in our own work and in the authors' work in this book, we see evidence of "the heart of SoTL." We see new and varied voices, an intentional situatedness, important questions about power and conformity, and commitments to affective and equitable experiences of learning.

#### Journeying into the Field of SoTL

Many academics begin SoTL focused on how it can serve as a form of professional development on teaching. Those who look farther than improving their work as teachers will find that SoTL is also a field of study. Fields are broader than disciplines because "the phenomena they study are relatively unrestricted and the methods, frequently taken from several disciplines, are diverse" (Donald 2002, 10). Kimberley A. Grant (2018) explores this notion of SoTL as a field, drawing on Sharon Friesen and David W. Jardine's description of a field as a "living landscape" that's both marked by internal "diversity, multiplicity, modes and forms and figures" and "amenable to a wide range of explorers" (2009, 156). Indeed, as a field, SoTL is relatively young. Although the work of systematically investigating teaching and learning has been practiced in some disciplines for many years, Ernest Boyer's 1990 naming of "the scholarship of teaching" invited faculty from all disciplines both to engage in this work and to come together in this common endeavor. Since this origin, SoTL has been characterized by the diversity and openness to explorers that Friesen and Jardine identify as hallmarks of academic fields. The explorers who enter SoTL come from all disciplines, from different types of postsecondary institutions, from any career stage, and from across the globe.

This diversity means that there are many ways of doing SoTL, and that it is a low-consensus field made up of scholars from both high-consensus and low-consensus disciplines. Anthony Biglan explains that high-consensus disciplines share a "paradigm," or "a body of theory that is subscribed to by all members," "provides a consistent account of most of the phenomena of interest in the area and, at the same time, defines problems which require further study," and produces "greater consensus about content and method" (1973, 202). Janet Gail Donald's Learning to Think: Disciplinary Perspectives offers physics as one of the most high-consensus disciplines because of its "high level of agreement about methods of inquiry," its "assumption of a single parsimonious system of explanation [that] underlies the scientific method," its convergence on concepts that "are sought to reconcile [anomalous] physical phenomena" and have "technical rather than everyday meanings," and more (2002, 32-33). At the other end of the spectrum is, according to Donald, literary study, characterized by "the diffuse nature of intellectual endeavor ... and the accompanying variety of approaches to thinking processes," resulting in such heterogeneities as "the breadth of the discipline, the multiplicity of approaches to understanding it, and the particular attention to aesthetics, feeling, and imagination" (232-233). This characteristic, perhaps more than any other, results in some of the continuing debates in the field of SoTL, including the efforts to settle on a clear definition of SoTL, what "quality" and "rigor" look like in SoTL, and who is granted entry into what has been described as a "big tent" (Huber and Hutchings 2005, 30)-all of which are wrapped up in concerns about pressures to narrow the field (Felten and Geertsema 2023). It also means that some view these continuing debates as a weakness (Boshier 2009; Tight 2017) and others as a mark of health (Simmons et al. 2013; Chick and Poole 2014; Yeo, Manarin, and Miller-Young 2018).

For those explorers who stay, SoTL becomes not just what they do but also shapes who they are. In other words, the journey involves not just the acquisition of new knowledge and skills but also a new identity. Identity is how one sees oneself in the world and it is not static; it is something that requires ongoing negotiation and is influenced by the communities one participates in and one's role in those communities (Wenger 1998). We have specifically chosen the word "Becoming" for the title of this book to acknowledge that no matter where one is in their identity trajectory(ies), one is always in a state of learning and therefore, becoming. Identity is re-negotiated each time one engages in a new community where one is compelled to reflect upon how one's previous competencies and identities can be translated (or not) into the new setting (Wenger 2000). One has to decide whether one is on "a journey to the heart of the community or as a visitor, a sojourner whose identity is primarily anchored elsewhere" (Fenton-O'Creevy, Dimitriadis, and Scobie 2015, 33). Thus, becoming a SoTL scholar often involves reckoning with one's academic identity in multiple and complex ways, and depends upon, among other factors, one's motivations and goals for engaging in SoTL, institutional context, research experience, and disciplinary training.

Simmons and colleagues (2013) first wrote about common elements of SoTL identity formation. They described themselves as being in a liminal space and resisted the notion that a pre-determined path or a single form of expertise exists. Common themes amongst this writing group of eight scholars included the difficulties of feeling like a novice, as well as the interpersonal and intrapersonal challenges of identity formation. Other authors have addressed these challenges as well, in particular exploring the associated challenges of disciplinary boundary crossing (e.g., Miller-Young, Yeo, and Manarin 2018; Webb and Tierney 2019). While many have offered wayfinding resources (e.g., Chick 2018; Miller-Young and Yeo 2015; O'Brien 2008; Steiner and Hakala 2021), those new to SoTL may still find the space disorienting. One reason may be the multiple definitions of SoTL which exist in the literature; we believe another is the historical lack of attention to different underpinning philosophies of various disciplines and the way they do their scholarship (Haigh and Withell 2020; Löfgreen 2023).

The metaphors of boundary crossing and trading zones may not capture the depth of these disciplinary and philosophical differences. SoTL scholars have reported feeling discomfort for an extended period of time; Simmons et al. (2013) describe this as "swimming in the liminal sea" (16). Other experienced SoTL scholars have indicated it can take ten years or more to make the transition (Kelly, Nesbit, and Oliver 2012; Miller-Young, Yeo, and Manarin, chapter 17; Webb and Welsh 2021). Simmons et al. suggest we need to learn to be comfortable in discomforting spaces, giving ourselves time to develop new identities and new practices. Further, as Wenger (2000) argues, crossing boundaries requires an open engagement with differences and a "commitment to suspend judgment in order to see the competence of a community in its terms" (233). Eventually, as we remain open and gain experience, SoTL scholars may serve as brokers and convenors, facilitating boundary crossing for others or even encouraging others with different interests and backgrounds to come together in cross-boundary projects such as this one. We hope this book makes the transition easier, or at least different, for developing SoTL scholars, and we explicitly encourage them to embrace identity formation as an intellectually engaging, dynamic, and continuous process.

#### About This Book

This book arose out of Janice's desire to address some of the ongoing challenges for scholars wishing to engage in SoTL. As a mid-career SoTL scholar, she has been doing and supporting SoTL for fourteen years. She started in a program specifically designed to support new scholars developing a SoTL project; she has since learned a lot through collaboration and only recently got to the stage where she was comfortable being the most experienced scholar on a team. She searched the literature for resources that would help her plan the next steps in her SoTL career trajectory and realized that most literature about "how to SoTL" is aimed at new-to-SoTL academics. Further, much of the literature on these topics exist in isolated journal articles; she felt faculty and students interested in SoTL would benefit from having others' learning pulled together in one place, thereby amplifying, integrating, and building upon the previous scholarship on this topic. Being a novice when it comes to editing books, knowing she would learn much from an interdisciplinary collaboration, and simply because she holds Nancy in high esteem, she invited Nancy to collaborate with her on this project.

We conceived of *Becoming a SoTL Scholar* as a book for academics who are deeply interested in SoTL. We hoped to provide a collection that would illustrate a variety of entry points, pathways, and strategies for ordinary academics to develop and sustain a career in SoTL. We thought long-time SoTL practitioners would want to reflect on how that work informs their identities. Tenured faculty would look to SoTL for a way to energize an otherwise languishing passion for their work. Pre-tenured, non-tenure-track, and teaching-stream faculty would want to learn how to engage more fruitfully in this multidisciplinary space. Upper-level undergraduates and graduate students would want to know how to pursue a career in SoTL.

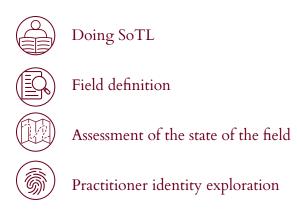
With these issues and audiences in mind, we issued an open call for chapter proposals. We pushed the call through our various networks and our networks' networks. We received forty-one proposals, far more than we'd anticipated. In the end, we narrowed the collection down to chapters written specifically for the academics themselves-those pursuing or sustaining a SoTL-centric careerrather than chapters written about them, such as how to support or advocate for them. (That's important and ongoing work, but a bit different from what we hoped to achieve with this book.) Just as SoTL work is very context-specific, so is SoTL identity development. With this in mind, we then selected chapters that would cover a diversity of stages in SoTL careers, institutional contexts, and disciplines in chapters written in a range of voices, styles, and genres. We also wanted a mix of practical advice, inspiring narratives, and aspirational visions, as well as realistic representations of current challenges. Ultimately, our chapter authors come from Canada, the US, and Australia, representing only a small portion

of international SoTL contexts; we hope this collection will inspire scholars from other countries to take up and build upon our work.

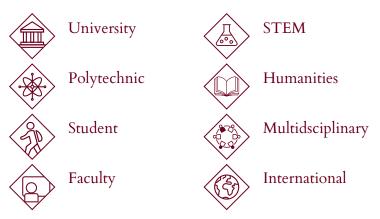
The resulting book is organized by the arc of an academic career. Section 1 is for early-career academics who are thinking about a life in SoTL starting now. Twenty years ago, such thinking might not have even been a possibility, but now we have five chapters on "Beginning a SoTL-Centric Career." A more common phenomenon is well-established faculty seeking something new to energize a career that spans decades. Historically, this is when many have discovered SoTL. Section 2 includes five chapters that explore this experience of "Shifting Focus toward a SoTL Research Agenda." Section 3, like section 1, speaks to the maturity of the field by supporting the SoTL scholars who have already built a SoTL-centric career and are thinking about ways of "Sustaining SoTL Engagement." Finally, section 4 goes meta by reflecting on how identity is implicated in "Becoming a SoTL Scholar." Regardless of career stage, we theorize that we are always becoming, with past experiences influencing our current intentions and decisions, and present experiences and relationships influencing our future imagined possibilities (McAlpine, Amundsen, and Jazvac-Martek 2010).

Beyond this explicit structure of the book outlined in the table of contents, we offer other pathways through *Becoming a SoTL Scholar*. First, given our invitation to be authentic in their writing, the resulting chapters offer an impressive array of genres and forms that SoTL dissemination can take. After we'd seen the first drafts, we decided to ask authors to identify the genre they'd chosen, using their own words. Readers will see this self-identification within each chapter. Janice offers her own definitional dimensions of SoTL in chapter 13. Second, inspired by the recommendations in chapter 12 for using keywords from various categories of a taxonomy, we categorized our chapters using the three trees: what, where, and how. Our "branches" are slightly different than those presented in chapters 12 and 13, which are focused on studies about student learning. For the purposes of this book, "what" refers to the focus of the chapter, "where" is the context the article comes from, and "how" is the form of dissemination, or genre.

Our "**what**" includes categories that focus on how to conduct SoTL, as well as several forms of SoTL introspection as identified by Gary Poole and Nancy Chick in "Great Introspections: How and Why SoTL Looks Inward" (2022):



Our "where" describes the context or population that is being written about:



And finally the various genres, corresponding to "**how**" the topic is communicated, include:



Research articles that report on systematic investigations



Conceptual articles that provide frameworks or models synthesized from the literature and/or personal experience



Scholarly essays that emphasize synthesis of literature but may also include reflection or narrative



Reflective essays in which authors explore an aspect of their SoTL experience to inform and assist others in similar circumstances



Narrative essays that tell a story with a narrative arc and may include reflection



A graphic essay that illustrates a narrative and/or new conceptualizations

Chapters have been placed in one of the four sections of the book based on their intended primary audience, and the branches are meant to serve as wayfinding tools for navigating the book. Thus, while the organization is chronological in terms of the stages of an academic career and the book could certainly be read from beginning to end, as one of our editors, Jessie Moore, suggested, some may "choose their own adventure" and start with the what, where, and how's that are of most interest to them. Either way, it is our hope that the book will make a practical and significant contribution to the literature and to the trajectory of current and future SoTL scholars.

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#### SECTION 1

#### **BEGINNING A SOTL-CENTRIC CAREER**

The five chapters in this section speak to students and early-career faculty who are interested in pursuing a SoTL-centric career. Written by a mix of new and experienced SoTL scholars from a range of disciplines, the chapters in this section consist of both reflective essays grounded in literature and empirical findings from a survey of research administrators. They include a strategic approach to beginning a career in SoTL, thoughtful reflections on the decision to pursue such a career, the role of journal clubs in this pursuit, and a cautionary tale about such pursuits in research-intensive contexts.

In the reflective essay "Becoming a Teaching and Learning Scholar by Design: Strategies for Scaffolding a SoTL Career Trajectory," Lorelli Nowell draws upon her own experience as well as the literature to describe seven strategies aimed at building a SoTL research career. Starting with practicing SoTL, she describes using SoTL to make a difference, for example, by using it to inform curricula. She also describes how to be strategic in one's SoTL agenda by aligning with institutional and disciplinary priorities, as well as by scaffolding research funding. All strategies are illustrated with examples from her own practice. Taken together, the strategies provide an "inclusive roadmap" to inspire new scholars' next and future steps in a SoTL journey.

In contrast, Sophia Abbot's "SoTL Citizen: Home and Exile in the Scholarship of Teaching and Learning" describes what a journey can look like when SoTL is begun as an undergraduate student. Her unique personal and academic journeys have led her to develop a rare identity as a "SoTL citizen," yet at the same time she has had to push past "repeated questions and gatekeeping" as a student and



young scholar. She encourages the reader to push boundaries as well, to keep the field open and ultimately to create radical change in higher education.

Next, Corinne Green's "The Braided Threads of Learning, Changing, and Becoming: Reflections on My SoTL Adventures (So Far)" presents an analysis of her own becoming through the lens of Anna Stetsenko's transformative activist stance. Using the metaphor of a braid, this reflective essay describes how she has learned about SoTL, transformed her identity to a SoTL advocate and enabler, and is becoming both a SoTL scholar and an academic developer. While she describes her journey so far as "planned serendipity," she also describes being intentional in the next steps of her SoTL journey. She considers how the writing of her chapter has helped her clarify her own intentions and how it may help others be more strategic and intentional in their own SoTL choices.

In chapter 5, we shift focus to strategies for learning about and starting to conduct SoTL. One key way is through journal clubs. Celeste Suart, Michelle Ogrodnik, and Megan Suttie's "Learning the Landscape: Using Journal Clubs to Introduce Graduate Students and Early-Career Researchers to SoTL" provides many recommendations for finding, participating in, or even creating a journal club. In addition to learning about SoTL, journal clubs can provide a supportive community and a multidisciplinary space for cross-fertilization of ideas, ultimately making the field "a little less intimidating."

Finally, Paula Baron and Silvia McCormack's "Planning a SoTL Research Career: A Cautionary Tale from Australia" presents the results from a qualitative survey of research administrators across Australia about their perceptions of SoTL. Their findings show that when evaluated against traditional research metrics, such as amount of funding and impact beyond the university, much SoTL can be perceived negatively. Those seeking a SoTL career should, of course, be aware of these challenges. However, their study also generated useful advice from research administrators who see SoTL as a "vital and emerging area of inquiry."





The chapters in this section are diverse in their focus, context, and genre but share a common goal of helping new scholars in their journey into SoTL. They offer valuable insights not only to students and new SoTL scholars but also to those who guide or mentor them. The chapters demonstrate multiple avenues through which one might get started, providing both practical advice and inspiring stories. For example, three chapters are forward-looking and offer practical and intentional strategies for developing a SoTL-centric career, illustrating ways to learn and do SoTL and to address the issue of SoTL credibility. This section also illustrates ways to surface important parts of one's identity; two chapters reflect on and theorize the authors' recent pasts, illustrating what it looks like to be on the cusp of the next phase in their identity journey.



#### CHAPTER 2

# BECOMING A TEACHING AND LEARNING SCHOLAR BY DESIGN

#### Strategies for Scaffolding a SoTL Career Trajectory

#### Lorelli Nowell, University of Calgary, Canada

As a registered nurse, nursing researcher, and relatively new academic, I gradually became a teaching and learning scholar as I recognised my passion to improve nursing students' learning experiences. Over time I developed a strong desire to positively impact quality education for all students and observed colleagues engaged in the scholarship of teaching and learning (SoTL). As I began to dip my toes into the world of SoTL, I came across a 2013 video titled "Key Characteristics of SoTL," published by the Center for Engaged Learning, where Pat Hutchings highlighted that SoTL involves people "bringing their habits and skills as scholars to their work as teachers . . . habits of asking questions, gathering evidence of all different kinds, drawing conclusions or raising new questions, and bringing what they learn through that to ... students' learning." This description of SoTL resonated with me, and it provides a grounding both for my development as a teaching and learning scholar and for this chapter. I also lean on Linda Evans' (2011) work on researcher development which she defines as "the process whereby people's capacity and willingness to carry out the research components of their work or studies may be considered to be enhanced, with a degree of permanence that exceeds transitoriness" (82). I offer this chapter as a reflective essay and potential roadmap for future scholars looking for a more permanent identity as a SoTL scholar.

While I come to SoTL from a nursing background largely focused on research in nursing education, I have grown to understand and appreciate that SoTL scholars come from diverse academic backgrounds, disciplines, and research expertise. Miller-Young and Yeo (2015) highlight how the field of SoTL is fundamentally interdisciplinary and therefore embraces a diverse range of research methods and world views. SoTL scholars also enter the field in a variety of ways. For example, some may design their journey into SoTL with "planned serendipity" as described by Green in chapter 4 or through a more organic nature as discussed by Winet in chapter 10.

Despite the diversity of SoTL, I have also observed commonalities among SoTL scholars in the many ways they can participate in and contribute to the field. In this chapter I offer some examples from my experiences in becoming a SoTL scholar and propose strategies for scaffolding a SoTL career trajectory that are relevant to a variety of disciplinary, institutional, and cultural contexts. I present approaches for: 1) practicing SoTL, 2) using SoTL to develop curricula, 3) contributing to the SoTL community, 4) aligning with strategic priorities, 5) scaffolding research funding, 6) leveraging relationships, and 7) building multidisciplinary collaborations, moving from local, to national, to international contexts. While each academic's path to becoming a teaching and learning scholar is unique, these strategies can be employed to get there by design. I present these approaches in a linear fashion, however there is overlap between them, where each approach can inform and enhance another (figure 2.1).

#### Strategy One: Practice SoTL

When I first began querying my own teaching practices and how they impacted student learning, I was beginning to practice SoTL without even knowing it. I began trying new teaching techniques and observing students' responses. I then began to lean into my nursing disciplinary research expertise and formally study my teaching practices and how they impacted student learning. For example, I developed and studied a new simulation for fourth-year nursing students aimed to help them develop prioritization and delegation skills. I found the simulation was an effective teaching

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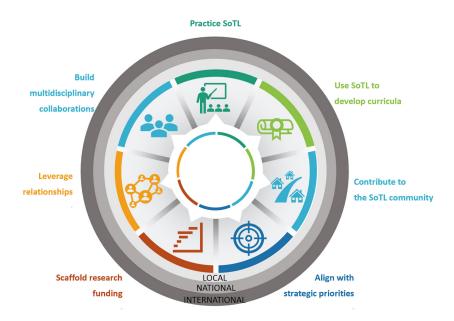


Figure 2.1. Strategies for building a SoTL career

and learning strategy and shared my findings with others locally through faculty blog posts, and more broadly through a conference presentation and in a peer-reviewed nursing education journal. While I had not yet come to define myself as a SoTL scholar, I was practicing SoTL and my curiosity about how teaching practices impacted student learning continued to grow.

Upon reflection, having literature to guide my beginning SoTL practice may have been helpful. I encourage new or hopeful SoTL scholars to begin by identifying teaching and learning issues or pressure points. I also suggest getting to know more about SoTL through reading articles that provide overviews of the field (e.g., Divan et al. 2017; Felten 2013; Manarin et al. 2021; Miller-Young and Yeo 2015) as well as the other chapters of this book.

While my experience as a novice SoTL practitioner was positive, it is important to understand this may not be the case for everyone. Simmons et al. (2021) describe how some teaching-focused faculty may experience barriers to practicing SoTL, including lack of access to funding, isolation, high workload, and SoTL not being valued by the institution. In such cases, I encourage potential SoTL scholars to lean into supports from outside their institutions, such as disciplinary societies that may have SoTL initiatives, and the International Society for the Scholarship of Teaching and Learning (ISSOTL), and to develop relationships with more experienced SoTL scholars for support and guidance. There are also SoTL development programs available; the University of Saskatchewan in Canada launched a Masters of Scholarship of Teaching and Learning in the fall of 2022 and a PhD in 2023. While programs like this are relatively new on the teaching and learning landscape, it will likely not be long before other programs like this emerge around the world.

#### Strategy Two: Use SoTL to Develop Curricula

Developing a productive program of research focused on advancing teaching and learning practices in higher education can provide evidence to inform teaching, learning, curriculum development, evaluation practices, and policies in higher education. Miller-Young et al. (2017) describe this as "leading up in the scholarship of teaching and learning" (1). While individual SoTL studies can be utilized to implement innovative teaching approaches in classrooms, collaborating with other SoTL scholars to develop the curriculum for and teach core components of SoTL is another way to engage in applied scholarship, and then share and disseminate SoTL work for the broader benefit of others.

For example, during my postdoctoral fellowship, I collaborated with colleagues across my local teaching and learning institute and the broader university community to develop and deliver SoTL-informed teaching and learning certificate programs to support graduate students, postdoctoral scholars, and academic staff in building their teaching skills. I engaged in research and conducted program assessment to evaluate the impact of the certificate programs. Programs similar to these certificates have shown significant short- and long-term positive impacts for instructors, students, and institutions, such as improvements in student learning, shifts towards learner-focused teaching approaches, and enhanced instructor confidence and enthusiasm following the completion of certificate programs (e.g., Stewart 2014; Butcher and Stoncel 2012). Supporting others in developing their teaching practice through SoTL-informed teaching development programs is just one way to lead up in SoTL.

Another way to use SoTL to help develop curricula is by leaning into teaching and learning leadership roles. For example, when our faculty was looking to launch an innovative graduate certificate program to offer advanced nursing practice knowledge along with practical experience for registered nurses wishing to acquire specialized skills, I was appointed to lead the Innovations in Teaching and Learning Certificate and chair the Graduate Certificate Committee. In this role, I shared my teaching and curriculum development expertise with others through teaching, mentorship, and more formal workshops and retreats. This opportunity was another way to ensure SoTL was used to inform and implement innovative teaching approaches across our programs for the broader benefit of others.

I encourage new and prospective SoTL scholars to seek out opportunities to use SoTL to inform curricula in their contexts. This may be through developing new initiatives and programs, using SoTL to redesign existing courses or assignments, or engaging in teaching and learning research to evaluate new and redesigned curricula. No matter the context, using SoTL to inform curricula is another way to engage with and contribute to the field.

## Strategy Three: Contribute to the SoTL Community

As you make connections with colleagues who are interested in SoTL, it is important to immerse yourself in the SoTL community to understand, promote, communicate, and disseminate good teaching practices (Poole and Simmons 2013). I found participating in events such as teaching and learning conferences and workshops helped me to build networks, create awareness of various teaching and learning approaches and techniques, and promote my understanding of SoTL cultural norms. Joining teaching and learning committees, peer reviewing articles and conference abstracts, supervising or examining SoTL theses, and adjudicating teaching and learning awards provided essential opportunities for me to experience and contribute to SoTL work and to immerse myself in the SoTL community. It also increased my understanding of disciplinary commonalities and differences across research, teaching practices, and experiences of student learning.

While in traditional academic roles, submitting and publishing teaching and learning scholarship to peer-reviewed disciplinary and SoTL journals is important and encouraged. But there are also other ways to contribute to the field. I found ways to contribute to evidence-informed, open access teaching and learning resources to share expertise in ways that had influence beyond my individual teaching practice. To further engage in SoTL work, Billot et al. (2017) encourage sharing SoTL work with students and local colleagues through informal and formal activities, tailoring messages for different audiences, and helping institutional leaders understand the broader significance of SoTL work for their faculty and institution. For prospective SoTL scholars who work at less supportive institutions or are not in tenure-track positions, these informal opportunities to share SoTL are one way to potentially increase understanding and support for this important type of scholarship.

As I developed a greater understanding of SoTL and found my local and national SoTL communities, I began to engage in SoTL work at international levels to further build my SoTL networks and scholarly agendas. For me this included volunteering at international teaching and learning conferences and seeking out opportunities to contribute book chapters, such as this one! For prospective SoTL scholars, ISSOTL has a number of committees (e.g., advocacy, convenings, publications, and recognition committees) that offer excellent opportunities to build relationships and engage in cross-disciplinary and cross national SoTL work. ISSOTL also offers a number of international interest groups that are member-led and organized around shared interests to foster connections, share ideas across broad networks, and engage in global SoTL initiatives. For those looking to become a SoTL scholar, there are many dynamic and multifaceted ways to immerse in the SoTL community. Aligning these opportunities with personal and academic interests is a strategic way to become a teaching and learning scholar by design.

#### Strategy Four: Align with Strategic Priorities

In addition to promoting student learning and fostering positive student outcomes, scholarly teaching involves supporting one's departmental and institutional missions and objectives, including those at the national and international levels (McKinney 2013). Organizations often utilize policies and reward structures to promote and support strategic change at individual, faculty, and institutional levels. Becoming familiar with and then targeting SoTL work to these priorities can provide the catalyst to grow as a SoTL scholar. However, Baron and McCormack caution us in chapter 6 that much more needs to be done across higher education institutions to strategically recognize and reward SoTL as serious research.

It took me some time to realize that strategically aligning my SoTL interests and work to the larger whole, including institutional goals, national priorities, and international professional organization directives, could help me identify synergies in and support for my SoTL research. It also helped me identify gaps and make visible underexplored areas. For example, my faculty strategic plan highlighted advancement of nursing education as a key research pillar, yet there was a lack of SoTL research being conducted across our faculty. I aligned myself with this priority by engaging with SoTL to improve teaching practices, facilitate creativity in teaching and learning, and support nursing educators in becoming the best teachers they can be. My institution identified encouraging pedagogical innovation and evidence-based teaching practices as a key priority within their academic plan, so I focused my research on supporting high-quality and high-impact teaching and learning experiences by concentrating on students' learning needs and identifying effective teaching and learning approaches that had not yet been examined. Further, our national nursing body identified nursing education as

a national research priority. To support this priority, I aligned my research to develop, evaluate, and promote use of evidence-informed pedagogical approaches that foster learning for nursing practice.

In a literature review focused on supporting SoTL, Fanghanel et el. (2015) highlight international initiatives to raise the profile of teaching and learning in a systemic way that have emerged in several parts of the world. These authors encourage individuals and institutions to consider how aligning with international SoTL networks could help develop research-informed teaching across international borders. A good example of an international priority related to teaching and learning is ISSOTL's strategic priority to focus diversity efforts explicitly on issues of inclusion for members of equity-seeking groups: racialized members, disabled members, members from cultural or ethnic minorities, members with non-heteronormative identities, low socioeconomic status members, and members with caregiver responsibilities (ISSOTL 2019). Aligning with SoTL strategic priorities at the local, national, and international levels is one way to tactically develop a SoTL research agenda.

#### Strategy Five: Scaffold SoTL Research Funding

SoTL can be a common ground for scholars within and across disciplines to engage in research around critical educational issues in higher education. Although some SoTL projects may require very minimal funding, obtaining research funding to support SoTL projects may increase the perceived legitimacy and value of such research (Miller-Young et al. 2017). I discovered that when I articulated clear alignment between my SoTL work and broader institutional, national, and international priorities it became easier for me to scaffold research funding for SoTL scholarship. For example, I wanted to explore a local teaching and learning question about how our nursing students developed virtual caring skills. I spoke to various established SoTL scholars to help identify local pockets of research funding and leveraged my relationships to get invaluable feedback prior to submitting, which led to success in garnering research funding. I used these small grants to support undergraduate student opportunities to work with SoTL research projects and learn how they are developed and how results can contribute to new knowledge and practice. By locating and applying for small external disciplinary grants that support education and higher education research, I began to establish a funding track record.

Once I was successful with local funding opportunities, I explored my research findings closely to identify larger problems worthy of further investigation that would be competitive for national funding. I shared my findings with multidisciplinary colleagues from education, medicine, and social work, and we identified the teaching and learning of virtual caring skills as an issue across caring professions. We were able to come together and successfully apply for a national research grant that aligned with a national priority of working in the digital economy and global health and wellness for the 21st century. Our initiative focused on supporting development of virtual caring skills in students in caring professions. As with disciplinary-focused research, I found that when SoTL research is scaffolded to address problems that are relevant locally as well as more broadly across disciplines and institutions, I was more likely to be successful with competitive national and international research funding. Taking time to reflect on how SoTL projects can be funded and potentially scaffolded to larger research projects is a strategic way for prospective SoTL scholars to develop a SoTL research portfolio.

#### Strategy Six: Leverage Relationships

As I began to develop my interest in SoTL, I quickly recognized the importance of identifying and connecting with individuals who care about and lead SoTL work. These connections can begin organically, for example as the story Winet tells in chapter 10 of a coffee date that led to a meaningful pivot in career path, or through more formal mentorship as explored in chapter 14 where McCullum discusses the journey of first engaging as a SoTL mentee then becoming a SoTL mentor. The work of Roxå and Mårtensson (2009) reminded me how teaching and learning practices and cultures are strongly influenced by the small but "significant conversations" that are

based on trust and center around intellectually intriguing topics. I purposefully sought out individuals who care about and lead SoTL work and asked questions to identify synergies in our SoTL interests. This helped deepen my learning and strengthen connections. I also unabashedly shared my goals of wanting to become a SoTL scholar. These significant conversations led to connections with other SoTL scholars and leaders who share similar interests. Over time I grew a SoTL network that started locally and then grew across faculties and institutions, nationally and internationally.

As I began to leverage relationships to grow my SoTL network, I also identified the importance of finding colleagues who spoke the same SoTL language. Palmer wrote about "communities of congruence," where like-minded people who use the same language can come together to practice it, grow accustomed to it, and have it affirmed by others (2007). For me, this was finding fellow healthcare educators who were also interested in understanding and improving students' learning experiences. While there were certainly disciplinary differences, the core language and pedagogy used across the healthcare disciplines was familiar.

While I began to develop my SoTL network at my institutional center for teaching and learning and through local teaching and learning events, I understand for others, a community of congruence may not be available locally. In these situations, prospective or hopeful SoTL scholars may consider exploring open access and virtual regional, national, and international teaching and learning events to develop their SoTL relationships and networks (e.g., Euro-SoTL, SoTL in the South, LatinSoTL, Society for Teaching and Learning in Higher Education [Canada], SoTL Asia, or the International Society for the Scholarship of Teaching and Learning [ISSOTL]).

While some of my SoTL relationships came into existence via fortunate coincidence, I did not rely on such coincidences alone to build my SoTL network. I tenaciously developed relationships with SoTL leaders who were in unique positions to see possible connections that could help me build important networks within and across disciplines, institutions, and countries. These relationships were key to more purposefully developing my SoTL network. While I had mostly positive experiences, I acknowledge and respect that each individual's social location will shape their experiences and may encourage or discourage the formation of relationships, especially in relation to equity and power (Marquis et al. 2021).

Developing relationships with colleagues interested in SoTL helped me build a support system for knowledge sharing and problem solving, and it provided a means of gathering feedback, advice, and critical appraisal of work. Williams and colleagues (2013) reminded me that as meaningful connections, interactions, and social networks grow they can also support cross-fertilization of ideas and the dissemination and adoption of SoTL values and practices. For prospective or hopeful SoTL scholars, building and leveraging relationships with SoTL scholars can promote collaborative SoTL projects, strengthen teaching and learning collaborations, foster future research opportunities, and form the foundation for strong teaching and learning communities.

### Strategy Seven: Build Multidisciplinary Collaborations

Mackenzie and Meyers (2012) suggest that collaborative SoTL work involves "communicative processes between individuals working interdependently that result, over time, in a variety of outcomes from meaningful conversations about learning and teaching, to collaborative course developments and the sharing of resources, through to acting as critical friends, engaging in shared research projects, and co-authorship" (1). Building collaborations with likeminded researchers, leaders, educators, undergraduate students, graduate students, and postdoctoral scholars who value teaching and learning can strengthen and support SoTL career progression. Faulconer (2021) suggests that one of the first steps is to identify collaborators that bring several areas of expertise that complement your own. Collaborators could include, but not be limited to, those with teaching experience (teachers), learning knowledge (students), research expertise, methodology knowledge, data analysis skills, and knowledge mobilization talents. Having unique perspectives from across disciplines and institutions can be invaluable to a research team. With your collaborators, you might begin by considering aspects of student learning, course design, pedagogical strategies, and student experiences that could be a foundation for a project with broad interest across the team.

For novice SoTL scholars, collaborating with more experienced colleagues can be a safe space to begin to engage in SoTL work. Those more experienced might also consider interdisciplinary collaborations. Miller-Young (2016) highlights how multidisciplinary connections help foster learning about SoTL, exploring diverse disciplinary approaches and becoming "co-educators, co-learners and co-generators of knowledge" (4). For those with more SoTL experience, garnering and allocating funding to provide undergraduate students, graduate students, and postdoctoral scholars opportunities to engage in mentored SoTL research helps build capacity, supports dissemination opportunities, and may have significant, positive, long-term impact on student learning and engagement in SoTL. Making the most of SoTL collaborations requires trust and respect, along with a willingness to try new things and an openness to be challenged in new ways. When done well, SoTL collaborations at disciplinary, institutional, national, and international levels can encourage and promote SoTL work and advance SoTL scholarly agendas (Mackenzie and Meyers 2012). An example of an opportunity to take part in or build a collaborative, multi-disciplinary, and multi-national team is ISSOTL's International Collaborative Writing Groups Initiative. These writing groups provide participants with a unique international experience to collaborate on a SoTL-relevant topic and develop and complete a SoTL project. Intentionally engaging, building, and fostering collaborative and multidisciplinary teams is another way to purposefully grow as a teaching and learning scholar.

## Conclusion

The process of becoming a SoTL scholar is unique for everyone. While I presented the strategies for becoming a SoTL scholar as linear, in reality they are iterative and multifaceted, and they intersect at multiple points to inform and enhance each other. It is my hope this chapter will provide an inclusive road map for others, no matter the discipline, country, or context, to plan and design a SoTL scholar pathway and trajectory to get there by design.

## **Reflection Questions**

• Reflect on each of the seven strategies identified in this chapter and use the table below to highlight your current progress as a SoTL scholar at a local, national, and international level.

Strategy	Local	National	International
Practicing SoTL			
Using SoTL to develop curricula			
Contributing to the SoTL community			
Aligning with strategic priorities			
Scaffolding SoTL research funding			
Leveraging relationships			
Building multidisciplinary collaborations			

- What strategies in the chapter resonated with you the most and why?
- What strategies are missing from the chapter that you feel are important in establishing a SoTL career trajectory?
- How might you implement some of these strategies to grow your SoTL career?

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### CHAPTER 3

# SOTL CITIZEN

A Memoir of Home and Exile in the Scholarship of Teaching and Learning

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Writing to understand herself and her Asian American identity, feminist Elaine Chang (1994) settled on a story her mother told her of a blue frog. The frog was not actually blue, but called that through a mistranslation by her Korean mother. And yet, Chang identified strongly with the blue frog. She adopted the "counterfeit" story because the blue frog "is a (by-) product of cultural and linguistic cross-fertilization," (263) just as she was, and the mistranslated story became something new in its evolution. Chang ended her retelling of the story by asking, "Do blue frogs have a place in feminist theorizing?" (1994, 263). In 2010, Trinh Minh-Ha retold Chang's story and changed the question to ask: "Do blue frogs have a place in academic discourse?" (39).

I think the scholarship of teaching and learning (SoTL) is a blue frog in academic discourse, a by-product of disciplinary and linguistic cross-fertilization. My theory is that the disciplinary and linguistic blending in SoTL make it a space of both home and exile for those within it. My process of becoming a SoTL scholar has echoed my process of becoming myself: grappling with a sense of "never being fully adjusted" (Said 1996, 53), restless and unmoored from my very early childhood. Perhaps I developed a resultant comfort in that restlessness, the way a baby is rocked to sleep by constant movement. I sought out that feeling in academia, looking for the places I felt rocked, and I found SoTL. Becoming myself has been a process of creating my home in this academic space.

In the following, I share my personal experiences of feeling exiled and at home as an introduction to examining how SoTL may hold those same feelings for other scholars. I use theory and present my own through this piece. This kind of theory is intended to offer a possible lens through which to differently understand something (Kezar 2006)—in this case, SoTL and scholarly identity—but it is not intended to serve as a "grand theory" aimed at near universal generalizability. Leaning especially on Trinh Minh-Ha and Edward Said's theories about exile, I describe how those new to SoTL are like travelers filled with the possibility of transformation, and how those who stay in SoTL may become exiles-both in their experience of challenge and creative possibility. I offer examples of people who are exiles in the field and those who are exiled by the field before returning to unpack the implications of being an always-SoTL scholar as I am-a SoTL citizen. Through this grounding, I blend my critique and hope for the field to dismantle constructed differences among scholars and disciplines. Doing so, I hope, will help us all understand the possibilities of scholarship anew.

Many will not recognize themselves in my experiences—my entrance to the field has always been somewhat unusual, and SoTL citizens, as I will argue, are rare. Nonetheless, the longer this text exists, the more who will see their paths in mine. To all, I say *welcome*.

### First Exile: Fairhaven Primary School, Te Puke, Aotearoa New Zealand

I recall standing behind a trailer that was being used as a classroom, rectangular boxes dotting the field behind the rest of the one-level school. My cousin Laura was likely with me. We were seven and I was shy. I kept my shoes on in the dirt and grass behind the building and stuck out sorely. The boy who approached me was older—maybe nine?—and I remember his red polo, part of the school uniform for the older students. He was angry, though I don't remember why. My

journal that day reports that he appeared unprompted to shout *Fat Slob!* before disappearing again into the shadows behind the school building. I remember I cried and I had the sense his accusation had something to do with my Americanness. I also remember paying far more attention to my utterly normal tummy and a new and persistent worry that my body was too much.

When I was very little, I had an in-between voice. My American teachers asked if I was British. "New Zealand," I corrected them, and I could spell it, too. This kind of singling out felt special. When I spent two weeks at Fairhaven Primary with Laura, I felt inadequate. Being American wasn't special: I was further behind in math, I knew almost no Te Reo Māori, I couldn't run as fast. Back in Brooklyn, my first-grade teacher celebrated my return. She sat me before the class, where I read my journal aloud to my peers. Shortly after returning to Brooklyn, a classmate pulled my seat out from under me as I sat down. I was dislodged and unmoored.

I grew up in New York City, a place of constant movement. Nearly everyone I knew in high school were immigrants or children of immigrants. Most were from places that experienced political upheaval in the 1980s and 90s: Russia, Korea, Venezuela, Bangladesh. New York was our home at the same time as it was their families' exile. I was not *in exile*, but I lived in a borderland (Anzaldúa 1987). Like many of my friends, I was told stories of "returning": New York was temporary. The timing was never right, but I kept hoping that if we did go back, I could relearn my accent and start to fit in. Of course, if the timing had been right, I would have realized my Americanness will not disappear. I have roots here both in my maternal family, and also in this cultural context I know most intimately. When I wished to return to a place I never started in, I expected to find somewhere I fully belonged. That place does not exist.

I write this trying to map out my own complicated understanding of self and home, my own questioning of where I belong. In all the pilgrimages back over my lifetime, I have spent a little more than one year of my life in New Zealand—about three percent. Is there a specific measure that marks when one is enough of a place? I am in a constant state of oscillation, both recognizing and incapable of understanding that "[my] self is unstable, evolving, always exceeding its description" (Cohen and Dalke 2019, 386). This feeling of exile—though not *exiled*—is a part of my very being: too American to be a New Zealander, too New Zealander to be an American. I have always been both too much and not enough.

### Traveling to SoTL / Travelers in SoTL

Like my hometown of New York, SoTL is filled with travelers and exiles. There are more travelers in SoTL than there are citizens, as scholars pass through prompted by a teaching problem or question before returning to the security of their disciplinary work. The traveler is always negotiating between home and abroad (Trinh 2010). Home for an academic is the discipline whose questions echo one's own, whose methods feel familiar and natural, whose theories form the lenses through which one sees the world. For most, to step into SoTL is to step into the unfamiliar. This process can be an uncomfortable as scholars struggle to reconcile the differences between SoTL and their academic discipline and begin to question their scholarly identity (Simmons et al. 2013); in the previous chapter, Nowell offers some strategies for working to overcome this discomfort.

Each person entering SoTL faces some kind of marginalization—if you feel this way, know you are not alone. The artist and humanist discover they are "regularly harangued by colleagues from more empirical fields, told our methods [are] insufficient or invalid" (Bloch-Schulman et al. 2016, 109), told to learn a new language and translate themselves to fit a new mold (Chick offers a different path in chapter 8). The scientist finds their typical approaches no longer work: Can one ethically implement a control group if one believes deeply that a certain pedagogical approach is better (Bernstein 2018)? Can one generalize from statistical data in a class of only eighteen students? (Fisher shares a reframing for STEM researchers in chapter 7.) The social scientist often feels most at home. Their disciplinary dialect is one of the most commonly spoken in SoTL (Bernstein 2018). Yet, like the rest, their work still frequently faces questions of legitimacy and value by colleagues and administrators (McKinney 2018; Baron and McCormack review some of these critiques in chapter 6). How does SoTL fit into the research story one was hired to tell?

Many discomforts a SoTL traveler faces are tied to hegemonic expectations of knowledge that they and others bring to the field. Scholarly research and writing is filled with norms constructed by those with more power, which gatekeep those with less (Tuhiwai Smith 1999). The dominance of social science methods, for example, generally represents what Leibowitz (2017) described as "Western Cartesian" approach. In other words, knowledge is presumed to stem from rational, relatively objective study and analysis, is easily packaged into autonomous pieces, and is generalizable to a larger population (Leibowitz 2017). While SoTL often pushes against these assumptions, the SoTL research process and its representation through presentation or publication remain relatively uniform, in spite of calls for diversifying its production (Chng and Looker 2013) and genre (e.g., Healey, Matthews, and Cook-Sather 2020; Mercer-Mapstone and Abbot 2020). This academic uniformity comes at the exclusion of other kinds of knowing, which may result in the loss of those knowledges and the practices from which they stem (Leibowitz 2017).

If a discipline is a nation, scholars who step into SoTL are crossing borders, boundaries (Kensington-Miller et al. 2021), thresholds (Chick 2014; Webb and Tierney 2020). They are creating trading zones (Bernstein 2018) and coming to terms with their liminality. SoTL is a borderland, "created by the emotional residue of an unnatural boundary. It is in a constant state of transition. The prohibited and forbidden are its inhabitants" (Anzaldúa 1987, 3). Borderlands are ecologically rich. Likewise, SoTL is filled with a diversity of peoples and questions, filled with catalytic energy to affect change in higher education. Those who come to occupy this space more permanently—who become "prohibited and forbidden"—are what I would call SoTL exiles.

#### **Exiles in SoTL**

Many scholars find SoTL and never leave. These scholars are disciplinary exiles now living in SoTL, existing in a space of "never being fully adjusted," a state of "restlessness, movement, constantly being unsettled, and unsettling others" (Said 1996, 53). They may be forced to abandon the safety of their disciplinary sphere when they embrace this study of teaching-though they do not forget their culture, and they may continue to bring in the methods, theories, and assumptions that are native to their first homes. SoTL calls to these scholars even as they may be marginalized or passed over, left unfunded or unhired due to their participation (McKinney 2006). As their work is pushed into the periphery, they may disproportionately occupy teaching-centered (Simmons et al. 2021) or educational development positions (Felten and Chick 2018), rather than more secure, tenured positions within their discipline. These risks are disproportionately felt by faculty of color and women (Marquis et al. 2020). There are challenges to this state of being.

And yet, the experience of exile also brings benefits. Said (1996) argued that exiles are the only true intellectuals. This may seem hyperbolic, but there are some benefits to the condition, which include "the pleasure of being surprised" (59), a "double perspective" of "what is left behind and what is actual here and now" (60), and a recognition of situations "as contingent, . . . the result of a series of historical choices" that people have made (60). These elements are key to both doing SoTL and being a SoTL scholar. Many good SoTL questions come from following the surprise that one encounters in the classroom (Poole 2018). Recognition of limiting assumptions held about teaching ("what is left behind") and one's present students and classroom ("what is actual here and now") helps scholars adapt and innovate in their research and pedagogy. The context and the history of the students, the institution, and the nation are all relevant to SoTL, which values context in its knowledge production.

Together, these elements allow the "*exilic* intellectual" (Said 1996, 64) to reject the conventional and become a change-maker. SoTL's blend of study and application is change-making.

## Finding Home in Exile

Trinh suggested that exiles are "condemned to write only autobiographical works" (2010, 28). SoTL is in many ways autobiography: it is a field largely centered on one's own pedagogical practices and the intuitions that rise out of those practices (Poole 2018). Even many meta-reflections on SoTL as a field draw on personal experiences. Chick's 2014 defense of humanistic methods in SoTL pulls from her own background as a literary scholar. Chng and Looker's 2013 critique of western hegemony in SoTL stems from their experiences as SoTL scholars in Asia. Each is improved by that blend of personal investment, theory, and scholarly evidence.

Autobiography is a home that exiles build for themselves (Trinh 2010). My own SoTL autobiography starts with feeling exiled. In college, I jumped from class to class, enjoying nearly everything I did, but not feeling quite right in any single space. Choosing a college, I had the sense that I could make a home for myself anywhere I went. In picking a discipline, though, I was less convinced of finding home. I expected a gut feeling, an inner tingle that couldn't be sated. The hungriest I felt was in education courses, where questions of power and privilege drove me down rabbit holes and where every class was a lesson not only in content, but in the dynamics of interaction themselves. But we were a liberal arts college, which meant we could not major in a professional field like education.

The people who created their own major advised, "Don't do it." My professors said, "It will be harder if you are alone. You'll have to fight for everything." But something inside me kept whispering "what if?" When the professor I most wanted to become said, "If you are sure you want to do this, I will help you," I released the floodgates. Within two days, I had a plan fully drafted, recommendation letters secured, and a title for my major: *Educational Identities*  *and Empowering Pedagogy.* I had missed the declaration deadline, but my dean agreed to put forward my case. It was accepted without revisions.

Declaring an independent major was the stamp that secured my place in the in-between of academic disciplines. I pulled together coursework in English, education, sociology, disability studies, women's and gender studies, and history. Even some of those "disciplines" were interdisciplinary. I had no direct field to step into for graduate school, and I had no alumni in my department who could say, "This is what you can do with your major, because this is what I did." It wasn't until after graduation that I learned about the field of SoTL. Even then, I wasn't sure I could identify as a SoTL scholar. I was at a conference for the International Society for the Scholarship of Teaching and Learning (ISSOTL), in a newcomer's session, when I was asked to introduce myself with my name and discipline. Everyone else shared something recognizable: biology, or anthropology, or—

"I think my discipline is SoTL? Can I say that?"

Someone I had yet to meet affirmed me with a smile: "Yes, you definitely can." An assertion that gave proper name to the space I burrowed for myself in academia.

## Students Exiled by and from SoTL

Because my start in SoTL was as a student and my existence in SoTL continues through my student role today, I want to reflect on the exile of students. Despite the actively growing work of students as partners (Mercer-Mapstone and Abbot 2020), and though our engagement in its co-production is considered a fundamental principle of SoTL (Felten 2013), students are still only infrequently the co-producers and co-authors of this field (Mercer-Mapstone et al. 2017). This restriction may prevent students from developing the tools to engage in self-study and participate in SoTL knowledge production—especially those students who will not continue in the academy, whose perspectives make up the majority of undergraduates in higher education today. The marginalization of students in authorship occurs even as students serve as sources of data and objects of analysis (McKinney 2012). Students who participate as true partners too frequently bear the burden of justifying their legitimacy in a space where they are still seen as a novelty (Wilson et al. 2020). SoTL is not often written explicitly for a student audience (Maurer et al. 2021; McKinney 2012), and writing that *is* aimed at students tends to focus on those at the graduate level (Mauer et al. 2021). We can see the implications of this reflected in participation in academic societies: for example, of the nine students, including myself, who have served on the board of SoTL's leading academic society (ISSOTL), only one, as of 2023, has been an undergraduate.

I have been immensely privileged to have started in SoTL so early in my life—I now have a decade of experiences in this field. Yet even I have not been free from exiling experiences. After cultivating my voice in the warm embrace of my women's college, my self-doubt was reseeded by my first boss who said my attitude was "too empowered" (in August 2015). It returned when a reviewer wrote: "Possibly very new academics or those in the arts?" (September 2019). Again, last year, when a reviewer wrote:

We find it unclear whether the workshop will only be facilitated by Sophia. . . . We find it necessary that [colleague] is present as a co-facilitator . . . partly because she is the most experienced/renowned [educational] developer. We kindly remind you that pre-conference workshops are intended as high-quality offers run by renowned developers. (January 11, 2022)

Each statement is an exiling attempt and I wonder at the true source of the critique. My youth? My gender? My age? My lack of degree, my interdisciplinary background, my assertive voice, my critical spirit? What was it that gave me the scent of inadequacy? Which hidden rules had I failed to follow? I have had to justify my presence in all these ways, as well as justify the legitimacy of SoTL itself throughout my academic path. My resilience as a student in SoTL is due largely to the privileges I hold as a white English-speaking scholar. Those privileges have helped me find many wonderful mentors and colleagues in SoTL, whose support have advanced my career. My CV reflects their "relentless welcome" (Scobey in Felten and Lambert 2020, 20). My mentors are mostly white and English-speaking like me; I have likely found an easier home in SoTL due to some of our shared culture and identities. Others may not have the means and support to push past repeated questions and gatekeeping (e.g., see Yahlnaaw 2019).

These challenges exist across academia. Yet SoTL's reflexivity and cross-disciplinarity means it has the potential to lead a change. Students' active engagement in SoTL may constitute a form of epistemic justice in which students are affirmed in "their own capacity as knowers" (de Bie et al. 2019, 40). My own entry to the field began through pedagogical partnership experiences. I had the opportunity to feel deeply affirmed in my capacity to ask meaningful questions about teaching and learning and to seek out answers to those questions (and in chapter 4, Green similarly describes engaging in SoTL as a student, driven by questions about her then-current educational experiences). Mercer-Mapstone and Mercer (2017) suggested this kind of partnership—which positions students and faculty as active collaborators in teaching and learning—can give a "seat at the table" to those who have traditionally held less power in a space (e.g., students), and that doing so might "deconstruct the table itself" (6).

#### Home for the SoTL Citizen

As in my youth, I have faced exile, but I am not exiled. To be exiled would presume I have another home that I cannot return to—but I do not have a space beyond SoTL. Unlike these Travelers and Exiles, I am a SoTL citizen. I speak multiple dialects because there is intentionally no "official" language. SoTL is a borderland, and even a borderland, a boundary, or a threshold has a space where one might stand. That ledge is my home. Being a SoTL citizen is filled with possibility. Gloria Anzaldúa described learning how to develop a "tolerance for contradictions, a tolerance for ambiguity" through her borderland identity (1987, 79). She said the consciousness grown from this tolerance—*mestiza consciousness*—could help her "sustain contradictions" and "[turn] the ambivalence into something else" (Anzaldúa 1987, 79). Without diminishing her experiences or suggesting I share a *mestiza consciousness*, I do wonder whether my always-SoTL, always-inter-disciplinary-self grants me its own *different* kind of consciousness. I enter classrooms without reinforced assumptions of what a particular pedagogy should look like; I question traditional scholarly norms because I have seen how many norms are possible.

Being a SoTL citizen means I am asked: how do I make myself legible in a higher educational context that expects me to follow a coherent line of questioning, related methodologies, a single pool of foundational theories? I steep myself in feminism, queer theories, organizational and systems theories, pedagogical and educational theories, critical race theories. SoTL and I are both blue frogs. And if SoTL is autobiography, then I can use SoTL to map my edges. I hope my research will be strengthened by its need to be made explicit, free from assumptions of shared knowledge in a walled disciplinary community.

Said (1996) suggested that the last element of the *exilic intellectual* is that of becoming a beginner again (62). Webb and Tierney (2020) identified the process of beginning again as a barrier to SoTL participation, but Said might have said that that is the strength of the field. He exalted amateurism, which he described as

the desire to be moved, not by profit or reward, but by love for and unquenchable interest in the larger picture, in making connections across lines and barriers, in refusing to be tied down to a specialty, in caring for ideas and values despite the restrictions of a profession. (Said 1996, 76)

Said's view of amateurism was filled with hope and potential. In contrast, Chick (2013) noted that disciplinary experts "don't like playing the amateur any more than others like to see the work of the amateur" (20). Her discomfort likely stemmed from the simultaneous vulnerability of not knowing and the challenge of seeking scholarly legitimacy (indeed, chapter 5 by Suart, Ogrodnik, and Suttie acknowledges these emotions and offers a model for growing confidence and knowledge in community). I resonate with Said's romanticism, however. His description captures the hunger I sought when I looked for a major, and the excitement I feel in this "restless" community. Students are an exciting addition in the equation between amateur and professional because students are still becoming within their disciplines. Some students may even be in the process of becoming SoTL citizens like me, as more and more of us find our way to the field through student partnership and increasing recognition of SoTL itself. I hope our collective presence can sustain a blue-frog consciousness in SoTL that keeps the field open, that pushes it towards cognitive justice, that helps it create radical change. There is a home here for us.

### **Reflection Questions**

- Do you identify as a SoTL Traveler, SoTL Exile, or SoTL Citizen? How has that identification shifted for you over time? How might it change in the future?
- Try to map the edges of yourself as a scholar. Where does SoTL fit on that map?
- What might you do to ease the transition of SoTL travelers and exiles in the field? How can you support the development of SoTL citizens?
- Think about the assumptions you hold about what scholarship should look like. Which assumptions could you do without? What would it look like to create scholarship differently?

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#### CHAPTER 4

## THE BRAIDED THREADS OF LEARNING, CHANGING, AND BECOMING

Reflections on My SoTL Adventures (So Far)

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When I first saw this book's call for proposals with the editors' declaration, "We believe that it's time to map out what it looks like to be a SoTL scholar and how to get there by design," I was immediately excited to read the book. I had recently finished my PhD in teacher education at the University of Wollongong in New South Wales, Australia, and relocated interstate start work as an academic developer at the University of South Australia in South Australia, Australia. I had been involved in the scholarship of teaching and learning (SoTL)—primarily through the International Society for the Scholarship of Teaching and Learning (ISSOTL)—for five years through somewhat serendipitous means, taking up invitations to collaborate with colleagues on SoTL projects as well as attending and presenting at SoTL-focused conferences. I anticipated the value of this book as I started to make increasingly strategic and intentional moves for my career.

This chapter is a reflective essay of my story thus far as I'm becoming a SoTL scholar. I take up the invitation from Mick Healey, Kelly E. Matthews, and Alison Cook-Sather (2020) "to share the messy, unfinished, personal work of living and to critically analyze learning and teaching as [I] experience that work" (195). I have delved into academic literature and critical reflection of my experiences, and I have endeavoured to express what I have learnt along the way so that others can go on a similar quest. Happily, the act of writing this chapter has helped me to map out my plans for the future, so this book—or at least, this chapter—has indeed lived up to my initial hopes!

### A Metaphor for "Becoming-Through-Doing"

To explore what it means to be and become a SoTL scholar, I draw upon Anna Stetsenko's (2008, 2017) transformative activist stance, which "suggests that people come to know themselves and their world as well as ultimately come to be human *in and through* (not in addition to) the processes of collaboratively transforming the world in view of their goals" (2008, 471, emphasis in original). In emphasizing the agency that people have over their lives and their worlds, Stetsenko posits that there is "*no gap* between changing one's world, knowing it, *and* being (or *becoming*) oneself; all three dimensions *simultaneously emerge* from this process" (484, emphasis in original). I imagine these three dimensions as threads that are plaited or braided and that continuously lengthen and intertwine over time (figure 4.1).



*Figure 4.1. Braided threads inspired by the transformative activist stance (Stetsenko 2008, 2017)* 

This metaphor of a braid has guided my reflections by helping me to follow the threads to look closely at each element—learning/knowing, changing/transforming, being/becoming—in turn. I have used it to think about what I have learnt about SoTL, and how I will deepen this knowledge in the future; to see where SoTL has stretched and changed my sense of self, and how I can pursue ongoing transformation; and to recognise how I have already and will continue to be and become a SoTL scholar. These reflections are presented in the following sections as I consider how developments in these areas have led me to where I am now and where I could go from here.

Importantly, the braid metaphor communicates how each of these elements—learning/knowing, changing/transforming, being/ becoming—are entwined parts of a whole. I cannot truly examine them in isolation, and each informs the others as time passes and the braid lengthens. Stetsenko (2017) suggests that this braid I see can be described as "becoming-through-doing" (210), where the intertwined threads are both the process and the product of my adventures in this space. This leads me to the notion of planned serendipity, where I intentionally pursue certain opportunities while remaining open to others, not knowing exactly where they might lead. Motivated by the idea of "becoming-through-doing," I take the next available step and find my path as I walk.

Through my introspection that follows, I offer an example of embodying the transformative activist stance and exploring its elements as I look closely at each thread to explore how I am learning/knowing SoTL, changing/transforming myself and my world, and being/becoming a SoTL scholar.

### Learning/Knowing SoTL

Learning about SoTL has made my approach to teaching and learning much more intentional, while conversing with others and articulating my knowledge and intentions has deepened my understanding of SoTL.

#### Learning What SoTL Is

At first, it was difficult for me to get a clear sense of what SoTL is. I took an immersion approach at my first ISSOTL conference in 2016, soaking in ideas to try and get a hold of a workable definition. Toh Tai Chong (2022) had a similar experience, likening it to "jumping into a sea of literature not knowing what to look for" (92). The elusiveness was at times confusing, as I thought, "Is it this? Yes, but there's more to it than only this. Is it that? No, not quite. What about that? Hmm, that depends on who you ask."

My growing appreciation for nuanced and diverse representations of SoTL has only made it more complex to simply define. Khairiyah Mohd-Yusof and Narina A. Samah (2022) attest that "the progression of SoTL is evident by how it has been conceptualised, practised, modelled, applied and embraced by academics within specific contexts and disciplines" (8–9). Indeed, as Nancy L. Chick, Lorelli S. Nowell, and Bartlomiej A. Lenart (2019) posit, "the diversity of scholars, teachers, and practitioners in the Scholarship of Teaching and Learning is a strength but also makes it a complex field to understand and navigate" (186). In chapter 2, Lorelli Nowell reflects that "having literature to guide my beginning SoTL practice may have been helpful." Indeed, I have found an oasis in Peter Felten's "Principles of Good Practice in SoTL" (2013). I appreciate both the simplicity and robustness of these principles for understanding SoTL: it is "(1) inquiry into student learning, (2) grounded in context, (3) methodologically sound, (4) conducted in partnership with students, and (5) appropriately public" (2013, 121).

I have learned even more about SoTL by engaging in SoTL projects and applying Felten's principles. For example, I explored *student learning* in an inquiry into how learning analytics can be used to inform learning design (Eady et al. 2022). Conversations about SoTL with international colleagues have revealed the necessity of explicitly describing my *context* because our words have different meanings and interpretations. I have intentionally chosen *methodologies* that are appropriate, with ISSOTL conferences (in my experience) being an excellent avenue for discovering alternative options. Through *collaborating with students* to explore how a Facebook group can be used to promote student success (Green, McMillan, et al. 2020), I came to a deeper understanding of the value of students as partners in this work. Finally, I have tested out what is *appropriately public* by disseminating my research and reflections in journal articles, conference presentations, and occasional blog posts.

I certainly don't want to give the impression that I always fully implement all the principles of good SoTL practice. I wrestle with "conducted in partnership with students" in particular and find myself challenged by Sophia Abbot's insights in chapter 3 regarding students' exile in SoTL. I take solace in Felten's acknowledgement that "full partnership may not be practical or appropriate in all SoTL projects" (2013, 123). Regularly revisiting these principles reminds me what (ideally) SoTL can be and gives me a gentle nudge in the right direction.

#### Applying a SoTL Lens

Thinking through a SoTL lens has prompted me to examine what John Warner (2020) calls "teaching 'folklore,' the practices handed down instructor to instructor. I was doing what had been done unto me, no matter whether I thought it was effective" (207). For me, these elements of teaching folklore have included things like weekly didactic in-person lectures, attendance requirements, rigid grading approaches, and strict assessment deadlines. I am still learning what my position is on several of these (and many more besides!), but it has been fascinating to delve into SoTL literature and find the nuance in practices that I had once thought were obvious or unchangeable.

In addition to reading SoTL literature to explore these practices, I highly value conversations with colleagues that help me to see my own work through a SoTL lens. These conversations take varied forms, from informal chats with those in my office or peers at a conference, to loosely formal collaborations with international colleagues, to professional learning networks like the International Collaborative Writing Groups (ICWGs) with ISSOTL. ICWGs are also mentioned by Lorelli Nowell in chapter 2 and by Michelle J. Eady (2024) in chapter 15, with a similar initiative alluded to by Bruce Gillespie, Michelle Goodridge, and Shirley Hall in chapter 11. For me, these varied and ongoing discussions have been tremendously fruitful and represent great future potential for continuing to learn and know more about SoTL. These sustained connections with colleagues have pushed me to critique my practices and consider new perspectives and approaches. I have had similar conversations with my students, making explicit to them what I am doing and why, and encouraging them to articulate the same for themselves. I

anticipate that these explorations will continue to inform my work as both an educator and a researcher.

### Changing/Transforming My Identity

Engaging with SoTL and collaborating with others to explore teaching and learning has stretched me in many ways. Taking on a leader attitude as a SoTL advocate and enabler is one way that I can contribute to others' transformation.

#### SoTL-Led Changes

Since my first ISSOTL conference in 2016, I have been a part of several different SoTL teams and projects that have embedded me in the field of SoTL and pushed me to think deeply. A few of the projects involved conducting SoTL research, like using learning analytics to inform learning design (Eady et al. 2022), exploring how student success can be supported through social media (Green, McMillan, et al. 2020), or delving into the topic of ungrading (Green, West, and Delahunty 2022). Other projects were focused on understanding SoTL as a field, like the Small Significant Online Network Group that I co-established with international colleagues after we met at the 2016 ISSOTL conference (Green, Eady, et al. 2020; Eady et al. 2019; and that Eady also discusses in chapter 15). These collaborations—which, as in chapter 2 (Nowell), are a combination of relationships that began "via fortunate coincidence" and that I pursued with determination—have changed my teaching and research practices, and my identity as a teacher and SoTL scholar.

I've been further transformed through my involvement in an ISSOTL ICWG. As a group, we have explored how SoTL—which is so often seen as separate from and less than discipline research and knowledge—could be re-positioned as both the fulcrum between, and a fluid ribbon wrapped around, the "critical components of discipline mastery and non-academic life skills" (Eady et al. 2021, 268). Based on a relational foundation forged at the 2019 ISSOTL conference, we have challenged each other and our concepts of what SoTL is and can be. We have shared these ideas through conference presentations and journal articles, and we have plans for a future

book. We feel like we are on the edge of something important here, with the potential for reconfiguring how SoTL is viewed both by those within the field and those currently outside of it.

Indeed, it is through these various collaborative endeavours that my understanding and experience of SoTL has been pushed and transformed. Undoubtedly, the processes of working alongside others, articulating what we do and why, and going public have compelled me to test and refine my ideas and thereby transformed me as a scholar.

#### Transforming through Leading

I am intrigued by what Joy Mighty (2013) identifies as "perhaps the most important lesson that I have learned in relation to SoTL—the critical role of leadership" (114). I have benefitted from the influence and leadership of others, both directly (such as the collaborations and conversations mentioned above) and indirectly (through reading literature and learning from others' experiences). I am excited about the ways that I can lead others into and through SoTL in the future.

Being a SoTL leader is not predicated on having a formal leadership position. As Nicola Simmons and K. Lynn Taylor (2019) acknowledge, "leaders need not be in formal leadership roles, but rather are those engaged in activities that support others' work" (2). The fact that my current role as an academic developer doesn't necessarily have an official SoTL leadership component will not stop me from being an influencer and change agent in this space. As I consider what this work may look like, I have wondered whether I will mainly lead and support others as they conduct SoTL research without being an active contributor to SoTL myself. For instance, I have facilitated induction sessions for new academic staff at my institution to introduce them to SoTL. Simmons and Taylor (2019) found that "the most common role for [academic developers] vis-àvis the SoTL seems to be providing resources for others" (10), which I certainly see as a valuable piece of the puzzle, but I want to do this and more. I suspect that being an early career researcher plays into these desires, as I am encouraged (by the system, colleagues, and myself) to pursue large-scale research projects replete with funding

and dissemination strategies. I intend to lead others as I actively contribute to SoTL research, rather than "only" providing resources for others to do this work.

Whether my focus going forward will be in supporting others or contributing to SoTL myself, I can see myself transforming into a SoTL leader. As I work alongside fellow SoTL advocates and SoTL-curious colleagues, I find myself embodying Mighty's (2013) assertion that "the importance of leadership among peers cannot be underestimated when it comes to promoting SoTL" (115).

### Being/Becoming a SoTL Scholar

As I reflect on my career thus far, I realise that SoTL has been the through line for everything that I do. Whether I've noticed it or not, it has been there all along from my undergraduate degree through to now.

#### SoTL in Teacher Education

Ten years ago, when I was studying my undergraduate degree in initial teacher education, I was struck by the dissonance of lecturers who effectively said in the same breath, "Lectures are a terrible way to educate students. Now, sit there and listen to me talk at you for this two-hour lecture." My frustration at this approach informed my Honours research project: while my peers were investigating empathy in Indigenous children, or exploring how students can deconstruct children's literature, I turned my gaze to the elements of the degree itself that prepared my peers for their future teaching careers (Green, Eady, and Andersen 2018). Years later when I started teaching (on a semester-by-semester casual contract basis) in the same degree, I sought out active learning strategies for use in lectures and tutorials, and I experimented with ways to teach adult learners within and outside of these traditional settings. As mentioned above, this sparked a range of SoTL projects that enhanced my teaching practices, deepened students' learning experiences, and changed who I was becoming.

As I learned more about SoTL, I found it resonated strongly with my work and approach in teacher education. In fact, the link

between the two appeared so obvious to me that I was surprised when others in the school of education dismissed SoTL as somehow less than or undesirable. This matches Sophia Abbot's observation in chapter 3 that "each person entering SoTL faces some kind of marginalization." Even as a social scientist—often a position of privilege and dominance in SoTL spaces—"like the rest, [my] work still frequently faces questions of legitimacy and value by colleagues." For me, seeing SoTL as a fluid ribbon that connects and supports discipline mastery (in this case, teacher education) and transferable skills (such as critical thinking and problem solving) (see Eady et al. 2021) was a helpful reframing that legitimised my position and revealed a way for me to be a SoTL scholar in teacher education.

#### SoTL in Academic Development

As I approached the end of my PhD, I began searching for academic jobs that would suit my expertise and interests. I applied for several lecturer in teacher education positions, but it was a lecturer in academic development role that really grabbed my attention and spoke to what I'd been learning and who I was becoming. Here was an opportunity to take what I saw as basic elements of good teaching—things like active learning, lesson planning, curriculum alignment, and making intentional and justifiable teaching choices and promote them across the university for the benefit of all students and staff.

A key factor that gave me confidence to step into this role was the synergy I sensed between SoTL and academic development. This was affirmed as I immersed myself in literature about academic development and literature about SoTL, and how the two interrelate. Peter Felten and Nancy L. Chick (2018), for instance, explored how SoTL is a signature pedagogy of academic development. Indeed, I have come to the dawning realization that many of the SoTL scholars that I admire are also academic developers. I find that I now read their work in a new light, as though they are exemplars for what my career could look like. I see how academic developers can play key roles in developing and leading SoTL scholars by introducing discipline-based colleagues to SoTL, supporting deep dives into teaching philosophies and practices, and collaborating with colleagues to implement and contribute to SoTL projects. Although I am still working out what it means for me to be an academic developer, it is clear to me that SoTL will be intrinsically woven into what I do and who I am in this space.

### **Braiding the Threads Together**

Having explored the threads of my learning, transforming, and becoming in turn, I can see how they are entwined. Learning what SoTL is has deepened and shifted my identity as an educator and researcher—in my previous role as a teacher educator, and in my current role as an academic developer. Applying a SoTL lens to my work has transformed my practices and given rise to informal leadership opportunities. Looking at the braid of my work-inprogress career, I can indeed see how I am "becoming-throughdoing" (Stetsenko 2017, 210). By joining SoTL projects, reading and contributing to SoTL research, and interacting with SoTL networks, I have been simultaneously and increasingly learning/ knowing SoTL, changing/transforming my identity, and being/ becoming a SoTL scholar.

The process of writing this book chapter and reflecting on my own lived experience as a SoTL scholar has been "inextricably linked to the ongoing processes of developing identities, clarifying [my] values, and learning through writing" (Healey, Matthews, and Cook-Sather 2020, 3). By examining each thread and noticing the braid they are creating, and in determining how I can communicate this through writing, I have been able to see more clearly both the process and the product of my adventures in this space.

### **Planned Serendipity**

There has undoubtedly been a lot of serendipity in my SoTL quest. What might have been, in some alternate reality, if my colleague hadn't invited me to the 2016 ISSOTL conference (let alone various SoTL endeavors since)? What if I had encountered more overt resistance, or less support, in those early days? Would I have made my way into SoTL, without these formative opportunities? Perhaps. After all, there are many paths I probably could have taken. Nevertheless, I am exceptionally grateful for the path that I have been able to take, and the relationships that have grown along the way.

In acknowledging these moments of serendipity, I recognise the privilege that I have that has enabled me to take advantage of these opportunities. One colleague in particular has been a powerful advocate on my behalf and has smoothed my path many times. I echo Sophia Abbot's acknowledgement in chapter 3 that "my CV reflects their 'relentless welcome.'" As a doctoral student, I had flexibility and autonomy to pursue areas of interest in both paid and voluntary capacities that have furthered my career. ISSOTL's commitment to welcoming and supporting students has likewise been very influential in my involvement.

I have also demonstrated agency by taking the initiative and seizing opportunities that presented themselves, as well as considering where those opportunities arise and thoughtfully being present in those spaces. I see this approach as a kind of planned serendipity, where I intentionally enter spaces and create capacity so that I can take up the as-yet-unknown opportunities that I may have in the future. Developing and sustaining key relationships has given me further access to these spaces and opportunities.

Now I have a chance—and a desire—to be intentional about my next steps. I like to make plans but hold them loosely: having goals and objectives, setting deadlines, and moving with purpose and direction, while maintaining the flexibility to adapt and overcome as challenges and opportunities arise. I will therefore make and re-make plans for the SoTL career I want to build. The braided threads of my transformative activist stance have provided a useful framework for my reflections in this chapter. In the same fashion, the plans that I make for my future will be informed by this agentic metaphor as I look forward to more adventures through SoTL.

In writing this book chapter, I have given myself a valuable opportunity to reflect on my own story, engage with literature on identity and SoTL, and clarify my intentions for my ongoing work as a SoTL scholar. My hope is that reading this book chapter has given a glimpse of what it may mean to learn and know SoTL, to change and transform self and world, and to be and become a SoTL scholar.

Writing this book chapter has been an opportunity for the kind of introspection that "leads us to ask, 'Who am I?'—not as an existential crisis but as an exploration of relevant parts of our identities" (Poole and Chick 2022, 4).

Who am I? I am a SoTL scholar—learning and knowing, changing and transforming, being and becoming.

### **Reflection Questions**

- What teaching and learning experiences have been transformational for you? How have they informed changes to your practice and influenced your career choices?
- When you look back on your own adventures into and through SoTL, where have you demonstrated agency? How can you enact the approach of planned serendipity in the future?
- How are you learning/knowing, changing/transforming, and being/becoming? What similarities and differences do you notice between Corinne's reflections and your own?
- For Corinne, relationships and collaborations have been key entry points into SoTL and have sustained and deepened her connections to this community. Who has led you into SoTL spaces? Who are you leading?

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## CHAPTER 5

# LEARNING THE LANDSCAPE

## Using Journal Clubs to Introduce Graduate Students and Early-Career Researchers to SoTL

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In this chapter, we describe our personal experiences as early-career academics who established our own scholarship of teaching and learning (SoTL) journal club. Readers will learn about the benefits of engaging in a SoTL journal club and, when participating, how to get the most out of the experience. We will discuss the impact of participating in journal clubs on participants' disciplinary knowledge and norms, critical thinking skills, problem-solving abilities, and confidence in engaging with research. We provide recommendations for participating, including how to read manuscripts from different disciplinary backgrounds, and we will discuss common challenges for newcomers to SoTL journal clubs and potential strategies to address these obstacles. Given that not all emerging SoTL scholars may have access to existing SoTL journal clubs, the chapter ends with tips for creating a journal club. Overall, our chapter integrates best practices from the literature with our personal experience to highlight why and how journal club participation can make entry into SoTL less intimidating.

## Who Are the Authors?

It is important to acknowledge our context as authors for understanding our positionality when writing this chapter. All authors were or are currently PhD students at McMaster University, a large school in southwestern Ontario, Canada. Our disciplinary expertise includes biochemistry, psychology and kinesiology, and English and cultural studies. Alongside graduate work, all authors worked at McMaster's teaching and learning center, the MacPherson Institute for Leadership, Innovation and Excellence in Teaching, as part of the Educational Development Fellows (EDF) program, with experiences there ranging from two to six years. The EDF program is an experiential and developmental opportunity for graduate students to engage in educational development work during their studies. The program typically included four to ten graduate students; all authors worked as Lead Fellows for the program.

While the EDF role is largely service-focused, there is a strong commitment to professional development. Upon joining the EDF program, many participants share that they have heard of SoTL but have never engaged with the literature. We created a SoTL journal club to help participants learn about SoTL and other scholarly teaching literature that informs educational development practice.

## The Challenges of Starting in SoTL

The breadth of research in SoTL can be intimidating for newcomers to the field, given the range of SoTL research focuses, disciplinary perspectives, scales of practice, and theoretical frameworks (Divan et al. 2017). Three key barriers to entering the SoTL field highlighted in the literature are unfamiliarity and discomfort with SoTL research methodologies, a lack of knowledge of the SoTL literature, and a lack of confidence in engaging with SoTL.

Interdisciplinarity and transdisciplinarity are particular strengths of SoTL, allowing SoTL researchers to draw on perspectives and methodology from multiple disciplinary backgrounds (Chaka et al. 2022; Huijser et al. 2021; McKinney 2013; Voelker 2018). However, it also requires familiarity with norms and jargon from multiple disciplines (Hubball, Clarke, and Poole 2010; Miller-Young, Yeo, and Manarin 2018). Familiarizing oneself with research methods and literature outside of existing disciplinary expertise can be daunting for newcomers, especially with limited prior knowledge (Kensington-Miller et al. 2021). Given the breadth of SoTL literature, it can also be challenging to know where to start reading (Kim et al. 2021; Kenny and Evers 2011). Many report feeling disconnected from their identity as an expert in their disciplinary field and with their new role as a novice exploring SoTL, leading to decreased confidence engaging with SoTL (Marquis et al. 2017; Mathany, Clow, and Aspenlieder 2017).

Newcomers to SoTL have likely experienced one or more of these barriers. Likewise, more established SoTL scholars will remember their own challenges and discomforts when first entering the field. Given these obstacles, strategies for nurturing emerging SoTL scholars are essential for welcoming and retaining researchers and practitioners.

## The Benefits of Journal Clubs

These barriers to SoTL are far from insurmountable. Interventions focused on building community amongst SoTL scholars have emerged as some of the most effective strategies for helping newcomers (Simmons et al. 2013; Cox 2013). Approaching SoTL within a group allows emerging scholars to talk through difficult concepts while surrounded by peers experiencing similar challenges (Marquis et al. 2017). As explained by Kenny and Evers (2011), SoTL supports that focus on community building "provide a sense of reciprocal support and mentorship." Barriers that may be daunting to approach alone become more manageable together.

Journal clubs are a pedagogical tool used in graduate education to foster community among members and develop an understanding of the literature (Newswander and Borrego 2009; Bowers and Murakami-Ramalho 2010). Originating in the medical sciences, the use of journal clubs has expanded to other disciplines such as literature studies, engineering, and education (Golde 2007; Newswander and Borrego 2009; Tallman and Feldman 2016). Journal clubs use guided discussion to develop participants' critical evaluation of the literature through the in-depth examination of key journal articles, book chapters, and books (Gurney, Buckley, and Karr 2019). Through group dialogue, participants determine the strengths, weaknesses, and limitations of a scholarly work, as well as how research findings can be put into practice (Tallman and Feldman 2016; Wincentak, Cheung, and Kingsnorth 2019).

A journal club has two main aims: first, to teach disciplinary norms and best practices in research; second, to foster dialogue and mentorship between members with varying degrees of expertise (Bowers and Murakami-Ramalho 2010). Further, journal clubs lend themselves to multidisciplinary environments, as members can collectively examine underlying epistemological assumptions and widen their understanding of research methodologies (Emerson 2017; Wincentak, Cheung, and Kingsnorth 2019; Hunt 2006). Sharing of formal and informal knowledge, clarifying disciplinary norms, and building connections with peers have been previously identified as key factors for the professional socialization of SoTL scholars (Simmons et al. 2013; Marquis et al. 2017). Given that journal clubs, or their constituent practices, are already common in graduate student disciplinary training, they may be a particularly useful, and familiar, strategy for introducing SoTL to emerging scholars and helping to address the barriers faced by newcomers to the field.

## Our Experience Facilitating a SoTL Journal Club

As work within the EDF program is largely focused on supporting university instructors in developing their teaching practice, having a working understanding of SoTL literature is helpful for participants. Thus, since 2019, a SoTL journal club has been offered as part of the EDF program, with the goal of introducing program fellows to new SoTL methodology and findings which can be applied in their work. The journal club also fosters open discussion and connection between participants.

Planning for this journal club must account for the wide range of previous experiences with SoTL, the different disciplinary backgrounds, and varying levels of graduate training of fellows. We select a SoTL framework or review article as our first read with each new cohort, which then anchors discussions throughout the year. For instance, we have previously used Felten's "Principles of Good Practice in SoTL" to give journal club members a common point of reference in further explorations of SoTL (Felten 2013). Subsequent readings are selected to enable discussion of one of Felten's five principles in further detail—for example, to discuss the fourth principle of conducting SoTL in partnership with students, we select a SoTL article focusing on students as partners.

Though previous iterations of the journal club have met in person, we have moved our facilitation online, running once per month. Readings are selected and shared with the group two weeks ahead of time to allow members to prepare, along with two to three discussion prompts to guide reading. Facilitation duties are shared amongst Lead Fellows.

Being able to facilitate this SoTL journal club has been a terrific developmental experience for the Lead Fellows. Celeste notes the value of learning from colleagues with different disciplinary backgrounds about their research norms and methods: being able to explore research questions across quantitative, qualitative, and mixed-methods research methodologies has been a great opportunity not often found elsewhere. Similarly, given her disciplinary background in a predominantly qualitative field, Megan values the practice of engaging with and understanding quantitative research methods and findings. Michelle appreciates the discussions about how findings can be applied, with different suggestions offered depending on each participant's current work, expertise, and context.

Participating in a journal club has been meaningful to our work as Lead Fellows and has demonstrated consistent benefits for each new cohort. We would recommend the experience to all SoTL newcomers.

## But How Does One Find a Journal Club to Join?

With some targeted research, readers may be able to find an active journal club that matches their research or teaching interests, capacity for engagement, and availability. There are multiple variations on the journal club format; some key components include (Cetnar 2021; Newswander and Borrego 2009; Deenadayalan et al. 2008):

- Number of readings per meeting (one versus multiple)
- Research topics (broad versus specific focus within SoTL, such as students as partners literature)
- Methodologies (certain methods only versus a variety of methodological frameworks)
- Frequency (weekly, monthly, quarterly, etc.)
- Location of meeting (virtual versus in person)
- Length of meetings

If readers are connected to a postsecondary institution, a good first place to look is their institution's teaching and learning centre. Teaching and learning centres are units within postsecondary institutions which focus on educational development and supporting instructors' teaching; many centres also support SoTL initiatives (Hubball, Clarke, and Poole 2010; Marquis 2015). Teaching and learning centres often have SoTL-focused programming, including training workshops, funding opportunities, and journal clubs (Kim et al. 2021). If they do not host any SoTL journal clubs themselves, they may be able to connect people to active journal clubs elsewhere at the institution (e.g., within departments or research groups). When doing their research to find a journal club, readers should keep in mind that journal clubs may be described using other names, such as reading groups, communities of practice, educational rounds, or "lunch and learn" sessions.

Another place to look for SoTL journal clubs is through professional organizations focused on teaching and learning. For example, the Open Consortium of Undergraduate Biology Educators, a Canadian organization for post-secondary biology educators, has had a monthly SoTL journal club since 2014. Readers can reach out to SoTL organizations of which they or people they know are a part, as they may have SoTL literature-focused sessions. Disciplinary-focused professional organizations may also have education-focused journal clubs, but they may use terminologies such as discipline-based education research or pedagogical research instead of SoTL.

## Participating in a SoTL Journal Club

In this section, we will provide advice for participating in a journal club, including suggestions for preparing in advance, participating during a meeting, and reflecting afterwards.

#### **Preparing in Advance**

When going through the selected reading, journal club participants should consider allocating themselves additional time in comparison to reading their traditional disciplinary work; they might also consider reading the text more than once. There may be new methods, theories, and concepts presented in SoTL work with which participants are less familiar—or completely unfamiliar that may require more processing time. While reading, annotating the article or otherwise recording thoughts and ideas is a valuable practice (Voelker 2018); these notes will also be useful later during the journal club discussion.

Importantly, it is okay if participants do not understand everything about the selected reading on the first try! The desired outcome of participation is not to be an expert after finishing the reading, but instead to discover new ideas and approaches. Journal club participants will likely gain a much better understanding of the reading through their discussion with other participants. For example, in our EDF SoTL journal club, we had qualitative and quantitative methodologists: when reading papers that heavily relied on qualitative approaches, those with disciplinary expertise (even though it was not in SoTL specifically) helped provide insight and support to those who had not used those approaches before, and vice versa. If participants do not have particular expertise within their journal club group for questions that may arise, they should not be afraid to connect with additional resources, including online journals or people outside of their club. A great paper to begin exploring the breadth of SoTL methodologies is Miller-Young and Yeo's "Conceptualizing and Communicating SoTL" or Divan

and colleagues' survey of research approaches used in SoTL (Miller-Young and Yeo 2015; Divan et al. 2017).

Participants should provide themselves with grace to learn, especially if SoTL is newer for them. However, it is imperative to recognize that qualitative, quantitative, and mixed methods approaches bring value to the field. As they approach new disciplinary perspectives, we encourage participants to trust their academic instinct. They may not be familiar with all the conventions of other disciplines, but the transferable aspects of pre-existing academic training can be relied on. Is there a clear research question or statement of purpose? Are the research methods explicitly identified and explained? Does the reading have a logical flow of ideas? What conclusions are drawn from the findings? These aspects of scholarly writing quality are nearly universal and are shared across disciplines.

TIP: When finishing a reading, ensure journal club participants can answer the following questions. Consider writing down responses to these questions to reference during the meeting:

- Reading focus: What was the purpose or research question of the reading?
- Methodology: How did the authors go about answering this question?
- Findings: What is the key finding or take-home message from the reading?
- Prior learning: Do these findings relate or connect to any personal prior knowledge?
- New ideas: What was something new about SoTL learned from this reading?
- Remaining questions: What outstanding questions exist about this work?

Other strategies for the purposeful reading and annotation of SoTL can be found in "Reading SoTL: Exploring Scholarly Conversations" by David Voekler (Voelker 2018).

#### During the Meeting

By bringing an annotated reading, along with any additional notes they may have, journal club participants will have already generated ideas to contribute to the discussion. Typical discussion questions will likely mirror those we have suggested participants answer after reading; examples of other common questions may include what readers enjoyed about the work, what they think could have been done differently, where these findings can be applied, and where they imagine this line of research might go moving forward.

Remember that the goal of participating in a journal club is neither to be nor become an expert. The goal is for participants to engage with new literature, methods, and findings, to learn from and with peers, to broaden knowledge of SoTL, and perhaps to discover some key findings to apply in their own work.

#### After the Meeting

Following each meeting, we encourage participants to spend time reflecting on what they have learned (Zizka 2020). The reflection process may vary depending on a participant's individual context: for example, does the topic apply to their current work, or is this something they hope to apply in the future? If it is current, participants may want to spend more time drawing connections between key takeaways from the discussion and their current context. If it is for future work, participants should consider how the key takeaways align with their goals and in what ways they can ensure this information will be easily accessible to them in the future.

To help prompt the reflective process, a few sample questions to consider are provided below. These may not fit perfectly in all contexts, but they can serve as a starting point for journal club participants to develop their own reflective practice. As questions to prepare for the meeting largely focus on the content within the paper, the post-meeting questions here focus more on the discussion during the journal club meeting.

• Discussion ideas: What was something new about SoTL learned through the discussion process?

- Current application: How do these findings apply to current practice?
- Future application: How do these findings apply to future practice, or future goals?
- New ideas: What is something from this discussion that I would like to learn more about now? Following up on discussions, what is an area of focus or interest to learn more about moving forward?
- Discussion preparation: What about the approach to preparing for the discussion worked well? Is there anything to change about the approach to preparation? If so, how?

## Creating Your Own SoTL Journal Club

Perhaps readers are unable to find a journal club that matches their SoTL interests or their availability. In this case, readers may be interested in creating their own SoTL journal club. There are copious guides online and in the literature on best practices for facilitating a journal club (Wincentak, Cheung, and Kingsnorth 2019; Bowers and Murakami-Ramalho 2010; Newswander and Borrego 2009). As launching a new journal club can be labourintensive for one person, we highly encourage collaborating with a group of interested peers.

Five things to consider when creating a SoTL journal club include:

- Goal setting and focus: What are the learning objectives for the group? Deciding on this crucial component will give the organizers clarity about what research topics and methods will be their focus, as well as the target audience for the group.
- Logistical considerations: Organizational components are the backbone for journal clubs. How often will it meet? Will it be in-person, online, or a combination? How will meetings be structured? What facilitation strategies will be used? Deena-dayalan et al. (2008) and Cetnar (2021) provide reviews that cover the different logistical options for journal clubs.

- Identifying papers to discuss: As mentioned before, the breadth of SoTL literature can make it difficult to know where to start. Readers may find chapter 12 ("You're Here! Now What? A Taxonomical Pathway for Sustained SoTL Research Engagement") helpful in navigating the variety of terms used to describe the diverse types of SoTL research available to explore. To begin exploring foundational SoTL literature, we recommend the inaugural issue of *Teaching & Learning Inquiry* as a good starting point (Chick and Poole 2013).
- Crafting good discussion questions: For an hour-long journal club session, the organizers will want to create at least two or three open-ended discussion questions. Try to design questions which exercise higher-order thinking (Bloom et al. 2001). Consider prompts which connect the topics to prior learning, build an understanding of different perspectives and contexts, and apply findings to members' teaching and learning work (Voelker 2018).
- Journal club evaluation: Starting a journal club is an iterative process, and there will likely be refinements of structure and logistical choices between meetings. Getting feedback from members is crucial for this process. A "Start, Stop, Continue" framework is a simple way to seek constructive feedback that can be applied to future meetings (Hoon et al. 2015).

## Conclusion

Journal clubs can provide an access point into the world of SoTL that can help joining the field feel a little less intimidating. By engaging with SoTL work, journal clubs enable participants to not only learn something new from each paper but likely to generate new ideas and passions related to the field and their work more broadly. Intentionally seeking out (or forming) and then participating in a community of SoTL peers and colleagues can be a powerful resource in developing and sustaining a SoTL career, as we can also see in chapter 11 (Gillespie, Goodridge, and Hall) and chapter 15 (Eady). After reading this chapter, we hope that the value of participating in a SoTL journal club is clear and that readers feel confident in their ability to participate in or even potentially organize and lead a journal club of their own. Though joining a journal club is just one potential avenue, bringing in new people—each with their own unique experiences and perspectives—is the best way to continue growing SoTL as a field.

## **Reflection Questions**

- What disciplinary assumptions do you bring with you when reading new literature and assessing the quality of a SoTL paper? How might this differ with scholars from other disciplinary backgrounds?
- What methodologies in SoTL are you most uncomfortable with? Reflect on what might be the root causes of this discomfort and identify two resources to learn more about this challenging methodology.
- How could you use a journal club format to promote connection between SoTL scholars on your campus? How might your approach differ between connecting existing SoTL champions and newcomers to SoTL?
- What, if any, opportunities are available on campus to promote the longevity of a potential journal club (e.g., funding, support from campus units, support from campus leaders)?

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## CHAPTER 6

## PLANNING A SOTL RESEARCH CAREER

## A Cautionary Tale from Australia

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This chapter is concerned with perceptions of the scholarship of teaching and learning (SoTL) research. While increasing numbers of faculty report that they value SoTL and that it is supported by their departments (Gurung et al. 2019), SoTL as research has been questioned in the literature (see, for example, Canning and Masika 2020; Tight 2018). Our qualitative empirical case study investigated the relationship between SoTL and university research agendas in Australian universities. Specifically, we sought to answer certain questions in order to provide advice for intending SoTL researchers: How is SoTL viewed by university research leaders? Are there concerns about the pursuit of SoTL from a research perspective? How should an emerging or intending scholar wishing to pursue a career in SoTL proceed? We surveyed research leaders including deputy vice chancellors of research (DVC-Rs) and faculty/school associate directors of research (AD-Rs) in Australia's thirty-seven public universities to find answers to these questions. We found significant challenges facing early career researchers (researchers within five years of conferral of a PhD) seeking to build a SoTL research career, ranging from a lack of university strategic planning for SoTL to outright bias against SoTL as a research endeavor. However, our study also uncovered practical advice for SoTL scholars intending to establish a credible research career.

We begin by providing background to the literature about SoTL as research, and to the Excellence in Research for Australia (ERA) framework. We then describe our methods and our findings, and we discuss the issues arising from our work, finally providing some practical advice to intending SoTL researchers.

## Background

#### SoTL as Research: The Concerns in the Literature

SoTL, coined by Boyer (1990) in his seminal work *Scholarship Reconsidered: Priorities of the Professoriate*, is an internationally recognised movement of inquiry into teaching and learning (Tierney 2020). While definitions of SoTL are contested, Trigwell, Martin, Benjamin, and Prosser (2000) propose that SoTL has four dimensions: two of these, informed and communication, deal with SoTL as research and publication. The other dimensions of reflection and conception promote SoTL as the development of a philosophical viewpoint (Tierney et al. 2020). Our research focuses on the dimension of SoTL as research and publication.

The benefits of the SoTL movement have been acknowledged, and they include enhancement of learning; support for pedagogical preparation; professional development; improved learning opportunities; and the development of a global community based on teaching and learning (Masika et al. 2016; Tierney et al. 2020). However, the research and publication dimensions of SoTL have been, and remain, contentious.

There are a number of reasons for this controversy. It has been argued that Boyer's (1990) original concept of SoTL is not sufficiently detailed, resulting in variations in the ways SoTL is described (Trigwell et al. 2000) and in what constitutes excellence in SoTL research and how it should be measured (Pechenkina 2020). While the diversity of SoTL methodologies and outputs, and the disciplinary backgrounds of SoTL scholars, are considered to be strengths (see, for example, Tight 2018; Masika, Wisker, and Canning 2016; Robinson-Self 2018; Hubball and Clarke 2010), some critics argue that SoTL is over-inclusive and too diverse (Potter and Kustra 2011;

Canning and Masika 2020), undermining the credibility of SoTL research. There are also quality concerns. It is argued that SoTL has not led to innovative lines of research and that its focus is on the small scale, short term and local (Tight 2018; Canning and Masika 2020). Tierney (2020) asserts that the lack of funding for higher education pedagogical research, little or no time allocation in workload to pursue such research, coupled with the fact that studies tend to be local and done on one's own students, contributes to SoTL being seen as a "hobby" or "cottage industry." Canning and Masika (2020) note concerns that research presented at SoTL conferences often does not show theoretical underpinning or references, nor does it engage with existing educational scholarship. As a result, SoTL is not taken seriously by many educational researchers (Kanuka 2011; Canning and Masika 2020). Similarly, Tierney (2020) found that much SoTL activity in the UK did not qualify for inclusion in the Research Excellence Framework (REF), the research impact evaluation framework of British higher education institutions, and so can be considered "unworthy" (although she hastens to add this "does not mean that it has no intrinsic worth").

In light of these criticisms, Canning and Masika (2020) concluded that, despite its honourable intentions, the SoTL movement has been "a thorn in the flesh" of serious scholarship into learning and teaching in higher education and the term "SoTL" should be abandoned. Tight (2018) questions whether much SoTL activity would have taken place anyway, without the SoTL movement. This is reinforced by a sense that SoTL is just the "current, temporary manifestation and labelling" of ongoing concern about teaching in higher education.

Given these concerns, we were interested in how SoTL research fits into the Australian research framework. Our search of educational databases A+ Education, ERIC, and ProQuest, 2016–2022, found no publications directly on point. However, in the UK context, Tierney examined the experience of academics in the life sciences who carry out pedagogical research (PedR) as SoTL in the UK's REF. Inclusion of research outputs in the REF is not only competitive but also influences the value and status of research output. Her work responded to earlier work that examined the relationship of PedR and the REF, finding PedR undervalued and lacking in status. Tierney found that PedR outputs are underrepresented in the REF because, firstly, the research infrastructure present for disciplinary research is not replicated for PedR, and secondly, the teaching-focused life sciences staff prioritised teaching and were unable to devote the same time to PedR research as academics engaged in disciplinary research.

#### Australia and Research Assessment

SoTL, as a form of research, is driven in many countries such as the UK, New Zealand, and many EU countries by research evaluation frameworks that determine university research expectations and rewards (Zacharewicz et al. 2019). In Australia, the framework is provided by the Excellence in Research for Australia (ERA), and its companion exercise the Engagement and Impact Assessment (2020-2021). The latter seeks to assess how well researchers are engaging with end-users of research, and to show how universities are translating their research into economic, social, environmental, cultural, and other impacts (Australian Research Council [ARC] 2019). Research is defined in ERA as "the creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts, methodologies, inventions and understandings." Traditional outputs include authored books, chapters in research books, or refereed articles in scholarly journals or in conference publications (ARC 2019). In turn, the individual's research performance over a defined period generally feeds into workload calculations. Unlike some countries, there is no category of "research intensive" universities in Australia. Although research expectations, outputs, and resourcing may vary across universities, all public universities have both teaching and research responsibilities.

In most Australian universities, a deputy vice chancellor academic (or education) (DVC-A) provides strategic leadership in the development and delivery of academic programs, academic staffing, academic quality, and teaching and learning; and a deputy vice chancellor of research (DVC-R) provides academic leadership for research strategy and research development. At the next divisional level, the associate directors of research (AD-Rs) are responsible at a college, faculty, or school level (academic units in Australia are quite diverse, although faculties are the most common unit for this role) for facilitation, promotion, and development of the university's strategic development within the academic unit, as well as improvement in the quality and impact of research outputs. Thus, although SoTL strategic directions, oversight of teaching and learning, and its academic development activities are normally the domain of DVC-As, SoTL research falls within the jurisdiction of DVC-Rs and AD-Rs.

In Australia, the issue of establishing the value of a SoTL research agenda is becoming more acute as universities introduce "teaching-focused" academic positions. Such positions often carry with them an expectation that individuals will identify and promote teaching excellence through SoTL research (Simmons et al. 2021). SoTL research may therefore be perceived primarily as the domain of "teaching specialists," and such research is thus not necessarily valued in the same way as disciplinary research/fields (Canning and Masika 2020). This is a challenge for non-teaching-focused staff who wish to develop a SoTL research program. The issues are further exacerbated by the fact that the funding for SoTL research, including grant income, is modest or non-existent.

## **Our Project**

In 2022 we obtained ethics approval for our study and invited all thirty-seven DVC-Rs and 135 AD-Rs (whose names were readily published on university websites) to participate in the study. Participants were guaranteed anonymity. The participation rate for the invited DVC-Rs was 24% (or 9), for the AD-Rs it was 40% (or 54), and twenty-six of the thirty-seven universities (70%) had at least one AD-R who participated. The fifty-four AD-Rs oversee research in a range of discipline areas, as outlined in figure 6.1.

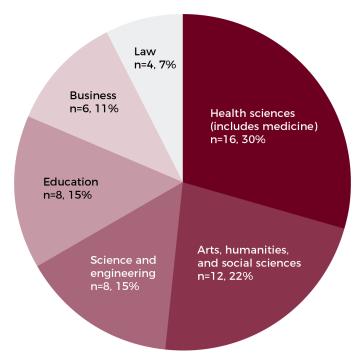


Figure 6.1. Discipline groupings of AD-R respondents

#### Questionnaire

Five online questions were asked of both DVC-Rs and AD-Rs, plus an open-ended prompt inviting any additional information. The questionnaire items are outlined in the summary of findings section.

When we examined the responses from both groups—the DVC-Rs and the AD-Rs—we found no qualitative differences between them other than the DVC-Rs were somewhat generic in their responses and the AD-Rs more specific. The DVC-Rs and AD-Rs questionnaire responses were thus combined. All sixty-three respondents replied to all five questions with insights and perspectives on pursuing a SoTL-focused career across a broad section of Australia's universities and disciplines. We used the generated data to construct and interpret our understandings of this group's views and to illuminate key aspects to be taken into account by early career researchers seeking a SoTL-focused career.

#### Analysis of Data

We selected qualitative content analysis as the most appropriate method for the analysis of the questionnaire responses (Hsieh and Shannon 2005). NVivo 2021, a software coding tool, was applied to code the survey response texts. The manifest analysis stayed close to the respondents' texts, and we coded for its surface structure meaning rather than underlying meanings. We applied inductive coding and derived the coding labels directly from the text data. We engaged in an iterative process to organize and reorganize text with similar content under its relevant code. Consistency checks were undertaken by both researchers. When coding was completed, we grouped codes that were repeated in a patterned way per survey question for potential themes and sub-themes (Bengtsson 2016).

The final step resulted in the close examination of themes within and across the survey questions to establish any central phenomena that influence the perception of SoTL research. These were integrated in the propositions related to our inquiry. We recognised that coding arises through our interpretation of data (Charmaz 2005) and therefore discussed and verified the coding process, during and on completion of coding.

## **Summary of Findings**

The responses to question 1, "Overall, what is the status of SoTL research in your University/Faculty/School as compared to discipline research?" repeated the concerns in the literature around the status of SoTL. Of some eighty references made, words used frequently in describing SoTL research were "not strong," "low profile," "less desirable," and "a poor cousin to discipline research."

Respondents identified multiple factors that impacted the status of SoTL. SoTL research was perceived to be local, unplanned, and published in low impact factor journals; outputs "lack quality" and are valued for promotion more than for research. Some respondents identified institutional problems that led to the poor status of SoTL: few scholars participate in SoTL research; SoTL research is perceived to be the domain of mainly teaching-focused staff; SoTL is not supported in the university; and leadership in the field is limited.

For the purposes of this paper, we have grouped questions 2 and 3 together as they referred specifically to ERA. Question 2 asked, "In what ways did SoTL research contribute to the ERA assessment at your university?" Question 3 asked, "Did SoTL appear in the ERA engagement and impact assessment at your university?" Fiftyseven references were made for question 2 and sixty for question 3. Answers to these two questions reflected some significant structural problems for SoTL in ERA itself. SoTL does not have a Field of Research code (FoR code) of its own linked to the disciplines, so output was coded to the Education FoR code. SoTL thus was perceived to provide a limited contribution to the discipline, school, or faculty in terms of recognition and funding. Nor was SoTL considered to be appropriate to show impact, respondents expressing the view that it was hard to see how SoTL made an impact outside academia. Early career researchers who intend to engage in SoTL research need to take these perceptions into account in order to counteract these as they plan and execute their research.

The fourth question, "What type of research development programs are in place for staff seeking to develop their SoTL research?" elicited some eighty-four references. Again, answers reflected significant structural problems for SoTL research: while SoTL researchers had the same access to university or faculty research development programs as other academics, many respondents observed that they were unaware of any SoTL-specific research development programs on offer. In a number of institutions, SoTL development was seen to be the responsibility of the centre for learning and teaching, rather than the faculties. Mentorship was the most commonly identified form of research development for individuals, followed by communities of practice and participation in a graduate certificate of higher education. Some universities offered small-scale competitive seed funding for SoTL research.

The fifth question, "What advice would you provide to Early and Mid-Career Researchers that elect to focus on building a SoTL research agenda in preference to discipline specific research?" drew very mixed responses. Those who counseled against engaging in SoTL believed SoTL limited career advancement. With universities focused on ERA and the need to build world-class research profiles, discipline research was more highly valued than SoTL. They argued it was difficult to find highly ranked learning and teaching journals in the disciplines in which to publish SoTL research. They were concerned that SoTL researchers might be perceived to be "underperforming" researchers. Finally, if the individual chose to pursue SoTL research, it might be difficult to move back to disciplinary research, because of the break in continuity. Those who would encourage SoTL research considered that it was a sensible path for teaching-focused academics and that SoTL is critical in improving teaching and learning effectiveness in universities. Those who recommended keeping an open mind urged individuals to reflect on their goals and motivations for engaging in SoTL, and to seek advice and support from faculty leaders. Thus, it may be hard to predict the level of support in a particular area: there were almost as many references (30) providing advice not to engage in SoTL research as those encouraging staff to engage in it (33). Nine references suggested that staff keep an open mind.

Lastly, respondents were asked to add any further information on the research topic. Their contributions added to the overall picture. In terms of the factors holding SoTL back, respondents identified: an institutional failure to support SoTL strategically and operationally; the fact that SoTL is rarely a selection criterion for new academic appointees; and the idea that SoTL is not prioritized in the same way as discipline research. Respondents suggested greater collaboration between the learning and teaching and research offices and AD-Rs to ensure SoTL is seen as part of discipline-specific research, and not separate to or lesser than, disciplinary research. The failure to support SoTL research was considered to be a lost opportunity, particularly in light of the increase in teaching-focused staff.

## Advice for SoTL Scholars

It is clear from our study that the intending or emerging SoTL research scholar needs to be aware of a number of potential institutional challenges that appear pervasive in Australia and, given the similarity in findings with Tierney's work (2020), seem likely to exist in other jurisdictions that have national research assessment frameworks. At the same time, respondents had sound advice for finding a way forward.

# Be prepared to face disinterest—or opposition—at your institution

In our study, firstly, most institutions lacked strategic intent for SoTL. SoTL did not feature in strategic research planning at most institutions and, indeed, in some institutions seemed to be a matter of disinterest to senior research leaders. Although SoTL would be likely to be championed by DVC-As, in each university the DVC-R and AD-Rs are responsible for leading, identifying, and rewarding research excellence and identifying and supporting research development and outputs. Their assessments of SoTL research are thus vitally important to Australian academics. Part of the problem here, we suspect, is that research leaders see SoTL as a matter for DVC-As; and DVC-As do not necessarily appreciate the place of SoTL as research.

Secondly, in many universities SoTL research was perceived as subordinate to disciplinary research. Indeed, as noted above, there was an outright bias in some responses against SoTL as a career research choice, with a considerable number of respondents advising against it, or advising the individual to think very carefully about it as a career choice.

A third, and related, challenge is that in Australia, SoTL research mainly falls into the education two-digit Field of Research code in ERA and is therefore classified under education rather than the discipline in which the SoTL research was undertaken. From a disciplinary perspective, there is relatively little motivation for research leaders to encourage and reward SoTL research since it is infrequently counted as a research output measure in their discipline. Lastly, a number of research leaders considered the quality of SoTL research as poor, in need of more rigor and stronger theoretical underpinnings. The issue may be linked to the diversity of SoTL outputs and the definitional issues relating to SoTL (discussed earlier).

Intending and early-career SoTL researchers faced with opposition in their discipline may need to garner support in order to find a way forward from the AD-R in their school and/or like-minded supportive colleagues in their discipline. If there is no support within their area, it is worthwhile to reach out to colleagues interested in SoTL in their discipline at other universities, or reach out across disciplines at their university. In addition, most universities have learning and teaching centers that offer support for SoTL activities and development (though they may or may not appreciate the issues relating to SoTL research).

#### Reflect on your career path and plan your research

Even if there is no outright bias in the faculty towards disciplinary research, it is clear that there is still a perception of hierarchy between discipline research and SoTL. Research leaders in our study thus advised SoTL scholars to reflect on their career track and motivations and plan accordingly: What is it you want to be known for? What is your motivation to undertake SoTL research and take it on with seriousness? In particular, the advice is to pursue SoTL if the academic's position is teaching-only or teaching-focused. There is seen to be some risk in deviating from disciplinary research for scholars whose positions are teaching and research or research only. It is clear that at the faculty/school level the discipline remains key, with one respondent advising SoTL scholars to develop a narrative to show how SoTL contributes to their discipline.

#### Focus on quality

Respondents advised SoTL scholars to focus on quality and develop a focused, planned, and sustained research agenda. In particular, respondents urged SoTL scholars to have a solid grounding in educational theory and in methodology, either by studying such theory and methodology or by collaborating with those colleagues in education who can supply the relevant expertise. They urged SoTL early career researchers to develop rigorous research methods and ensure their work is publishable in peer-reviewed, highly cited academic journals focused on education in their specific disciplines or higher education. Emerging SoTL scholars can act on this advice by identifying their SoTL areas of research interest either through collaborative networks or systematic reviews of literature. In chapter 2, Nowell describes that, for her, it became easier to access scarce funding opportunities upon submitting applications that addressed relevant problems across disciplines and institutions and that articulated clear alignment between her SoTL work and broader institutional, national, and international priorities.

#### Network, collaborate, and keep records

Respondents noted that much of SoTL research is considered local and in need of national and international reach. They encouraged SoTL early career researchers to network and collaborate with SoTL scholars internationally, to join communities of practice, and to initiate or collaborate with other researchers on funding applications to further their research. This advice addresses issues discussed by Tierney et al. (2020) who found that intending SoTL researchers often have to wrestle with unfamiliar paradigms that are sometimes at odds with their discipline, and, in particular, find engaging with educational and pedagogic literature to be difficult. This may cause scholars to confine themselves to SoTL research within their own discipline, contributing to a sense of isolation. Reaching out to educational researchers and SoTL scholars in other disciplines, institutions, and countries may help to counter this isolation. In chapter 2, Nowell reflects on how she immersed herself in the SoTL community by peer reviewing articles and conference abstracts and adjudicating teaching and learning awards. Similarly, in chapter 15, Eady reflects on forging varied off-campus and international collaborations to extend and sustain ongoing SoTL engagement. Both Nowell and Eady also recommend joining the International Society for the Scholarship of Teaching and Learning (ISSOTL) International Collaborative Writing Groups (ICWG). These groups provide structure and support for SoTL scholars. In addition, Gillespie, Goodridge, and Hall (chapter 11) describe how a professor, academic librarian, and educational developer on a small campus with few resources developed a productive SoTL collaboration and through their collaboration formed two SoTL communities of practice with a range of positive SoTL outcomes, including nurturing an interest in and appreciation of SoTL at their campus.

Respondents also urged SoTL scholars to document the ways in which they engage with people, such as policy makers and practitioners, outside the university in the conduct of research, and to record the direct impacts and benefits of their work, supported by evidence. These records provide evidence of SoTL research activity that can support career progression.

#### Persist!

Despite the concerns expressed, a number of respondents identified SoTL as beneficial, indeed, crucial in the current tertiary environment. Respondents noted that, increasingly, teaching and SoTL provide a clear career path for academics and can contribute to greater interdisciplinary collaboration and collegiality, so for intending SoTL scholars, persistence was key. As Tierney et al. (2020) noted, "SoTL may be the frog prince, whose potential is yet to be appreciated."

## Implications for Institutions

Although our focus in this paper has been on the individual, our study raised many concerns about the institutional approach to SoTL scholarship. In our view, institutions must decide whether they value SoTL research (or not). If they do, they must provide clarity as to their definition of SoTL research, its value, and the institution's strategy intent.

Our study clearly showed that most institutions lack strategic intent for SoTL. SoTL does not feature in strategic research planning at most institutions and, indeed, in some institutions seems to be a

matter of disinterest to senior research leaders. Part of the problem here, as we observed earlier, is that research falls within the domain of the DVC-R, and SoTL falls within the domain of the DVC-A. In our view, if SoTL research is to be valued and legitimized then both DVCs need to work together, defining SoTL research and integrating it in the strategic framework, organizational structure, performance evaluations, and reward structures as a matter of policy. Attention needs to be given to time allocation within workload for scholars to pursue SoTL research, and funding needs to be available. We believe this would then have a trickle-down effect at the faculty and school level.

One finding of our research is that SoTL research is not often valued at the faculty or school level vis-á-vis disciplinary research. Indeed, there was an outright bias in some of the responses we received against SoTL as a career research choice, with a considerable number of participants advising against it or advising the individual to think very carefully about it as a career choice. A number of research leaders considered the quality of SoTL research as poor, in need of more rigor and stronger theoretical underpinnings. Research leaders at this level (assuming the institution makes clear that it values SoTL research) have a significant role in activating that institutional framework and supporting staff in their professional development to ensure SoTL research is high-quality and rigorous.

A final finding of our work in regard to institutional frameworks relates to the design of ERA itself. As noted above, in Australia SoTL research mainly falls into the education two-digit code in ERA and is therefore classified under education rather than the discipline in which the SoTL research was undertaken. From a disciplinary perspective, there is relatively little motivation for research leaders to encourage and reward SoTL since it is not counted as an output measure in their discipline. This is an aspect that the Australian University Accord, a current review of Australia's higher education system, could review and devise recommendations in order to encourage SoTL research publications.

## Conclusion

Our project focused on research and publication, two of Boyer's four SoTL dimensions (Tierney et al. 2020). The other two dimensions (reflection and conception) promote SoTL as the development of a philosophical viewpoint. Cognisant of the concerns in the literature as to the perception of SoTL research, we surveyed university research leaders in Australian universities and analyzed the results. We found, in fact, far more challenges emerging for intending SoTL scholars than we anticipated. It is clear that research metrics drive serious concerns about the perception of SoTL, and that disciplinary biases and institutional structures contribute as well. At the same time, SoTL is seen to be a vital and emerging area of inquiry. While we have focused in this paper on the advice for emerging and intending SoTL scholars, it is clear from survey responses that much work needs to be done at the university level to strategically value, develop, and reward SoTL. This support is vital if emerging SoTL scholars are to establish a strong foundation for their research program that meets ERA guidelines and contributes to the advancement of SoTL.

## **Reflection Questions**

- What is your motivation to undertake SoTL research and take it on with seriousness?
- SoTL scholars must make decisions about where to present and publish their work. At which conferences could you present and in which quality journals in your discipline area or in higher education could you publish your potential SoTL work?
- What opportunities are there in your university for you to build connections with experienced researchers in education and in SoTL to assist you in achieving quality research outcomes?
- What challenges and enablers exist in your institution for undertaking SoTL research?

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#### SECTION 2

#### SHIFTING FOCUS TOWARD A SOTL RESEARCH AGENDA

This section, which consists of five chapters, addresses topics for experienced disciplinary experts who wish to shift their scholarly work to focus on SoTL. While the first three chapters are written for specific communities (i.e., faculty from STEM, the humanities, and industry), the next two chapters consider how to find and create community to support such mid-career transitions.

In chapter 7, "Guiding Principles for STEM Faculty Interested in SoTL," Matt Fisher explicitly addresses some of the initial challenges STEM faculty may face when engaging in SoTL, including developing research questions that don't require a (quasi)experimental design and understanding how SoTL is similar to but different from discipline-based educational research. For example, Fisher effectively compares SoTL to ecological fieldwork in biology, a type of research that doesn't require the isolation of the phenomenon of interest from its context. He goes on to describe, with examples, how SoTL can draw upon diverse methodologies, diverse conceptual frameworks, and diverse contexts beyond a single course, and how it can be multidisciplinary and collaborative.

Next, in "Engaging with Nuance: Authentic SoTL Engagement for Scholars in the Humanities," Nancy Chick seeks to ease the transition into SoTL for humanities scholars by helping them both recognize themselves in the work and be more explicit about why they might do SoTL in specific ways. Drawing from a brainstorm by an international interest group, she unpacks the choices SoTL scholars in the humanities might make in terms of their purpose, their questions, their artifacts, their analyses, and their products.





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In chapter 9, Heidi Marsh and Eileen De Courcy write about the transition "From Industry to SoTL: Making the Case for Taking the Leap." In contexts such as polytechnics, institutes of technology, or vocational universities, teaching innovation and excellence is a priority; however, there is typically no mandate for faculty to engage in research and scholarship. Based their experience offering a SoTL support program on such a campus, the authors discuss some of the benefits and challenges their faculty members encountered and conclude with a series of recommendations for vocational faculty who want to do SoTL.

In "It Wasn't What I Came for But I'm Sure Glad I Stayed: From Writing Studies to SoTL," Kristin Winet tells the story of how she discovered SoTL after she'd already established herself within a disciplinary career, and then struggled with letting go of her disciplinary identity to redefine herself, her professional life, and a professional community within SoTL. Looking back, she realizes she has "always thrived in liminal spaces." Her journey will resonate with anyone who has considered leaving the traditional academic pathway leading towards a tenured faculty position.



Finally, Bruce Gillespie, Michelle Goodridge, and Shirley Hall's "Reaching Across the Disciplines to Build a Grassroots SoTL Community" presents the experiences of a professor, an academic librarian, and an educational developer who work together at a small liberal arts university to run a multidisciplinary, SoTL-focused community of practice. In sharing their lessons learned, they illustrate ways for others to be strategic about fostering a SoTL culture at their own institutions.

The chapters in this section inspire mid-career faculty in pursuing work that is meaningful and rejuvenating, while also supporting the challenges of transitioning from an established career path in a long-familiar context into a new one. While we classified these chapters as being about "doing SoTL", they also mark the initiation of the next phase in a SoTL identity journey. This phase involves a shift in focus from negotiating identity within oneself to negotiating a new identity with a community, whether that be one's discipline, campus, or a larger collective of SoTL scholars. In forging this change in identity, scholars need to think about who they are with respect to their previous community(ies) and about which parts of their prior knowledge, experience, and self can be usefully brought forward into their new context.



#### CHAPTER 7

## GUIDING PRINCIPLES FOR STEM FACULTY INTERESTED IN SOTL

#### Matthew A. Fisher, Saint Vincent College, US

Faculty teaching in one or more disciplines in science, technology, engineering, and mathematics (STEM) are increasingly becoming so interested in how students learn in their courses that they want to investigate this learning in a more systematic and scholarly way. This investigation can be a one-time effort, or it may reflect the start of a long-term engagement in the scholarship of teaching and learning (SoTL), as some faculty will make a conscious decision to shift the focus of their scholarly activity to this area. In this chapter I want to introduce some perspectives and considerations that I hope will be useful to STEM faculty engaged in making and sustaining such a long-term shift. From my own experiences as well as working with other STEM faculty, it is helpful to understand how SoTL work can vary significantly both in scope and the level the work is done at. In some ways, SoTL has important similarities to "ecological fieldwork" that are worth keeping in mind. SoTL work done by STEM faculty can also differ in the extent to which the work is focused in a single discipline vs. having a more interdisciplinary focus. Finally, as with traditional STEM research, faculty engaged in SoTL can do this work in ways that vary widely in terms of the degree of collaboration involved.

In The Scholarship of Teaching and Learning: A Guide for Scientists, Engineers, and Mathematicians, Jacqueline Dewar, Curtis Bennett, and I defined the scholarship of teaching and learning (SoTL) as (2018, 7): the intellectual work that faculty members do when they use their disciplinary knowledge to investigate a question about their students' learning (and their teaching), gather evidence in a systematic way, submit their findings to peer review, and make them public for others to build upon.

This definition was intentionally written to help STEM faculty view engaging in SoTL as less daunting than we found many of them perceived it to be. It also reflected key points made by many of the first-generation leaders in the developing SoTL community, particularly Lee Shulman and his colleagues at the Carnegie Foundation for the Advancement of Teaching.

As Miller-Young and Yeo (2015) point out, SoTL by definition includes a variety of disciplinary perspectives as well as multiple methodologies and theoretical perspectives. At the same time, at the core of SoTL is the goal of deepening our understanding of student learning. While student learning may have been viewed originally as understanding of disciplinary concepts, STEM faculty are now asking a wider range of questions related to student learning. The questions below are examples that I hope will convey the wide range of possibilities that STEM faculty can explore:

- What are students experiencing as they engage in various forms of writing or reading a variety of different scientific texts (textbooks, primary literature, articles in the popular media)?
- How are student experiences in STEM courses related to issues of diversity, equity, and inclusion?
- What are the impacts on student learning of courses or curricula that use more integrative approaches to learning which bring together STEM and the humanities?
- When issues of social justice are incorporated into a STEM course, how does that impact student learning and understanding?

These questions and others like them are particularly well suited to the variety of disciplinary perspectives, methodologies, and theoretical perspectives encompassed by SoTL. What does this mean for established STEM faculty who are considering a change in the focus of their career from doing "conventional disciplinary research" or being in a teaching-focused position with little engagement in research, to a career focused on SoTL? My hope is that the principles described in this chapter will be helpful in navigating this transition. In keeping with the theme of this book, this chapter is more concerned with the broader question of transitioning a research/scholarly agenda to one focused on SoTL rather than how to develop a specific project. STEM faculty interested in ideas or suggestions for developing an individual SoTL project are encouraged to consult the volume by Dewar, Bennett, and Fisher (2018).

## SoTL is not the same as what faculty often view as discipline-based educational research

STEM faculty interest in student learning isn't a relatively new phenomenon. Discipline-based education research (DBER)—with roots stretching back over seventy years in some disciplines and coming to prominence in the 1980s and 1990s—"investigates learning and teaching in a discipline using a range of methods with deep grounding in the discipline's priorities, worldview, knowledge, and practices" (National Research Council 2012a). What is the relationship between these two ways of investigating student learning? The answer to that question is complex, as SoTL and DBER are not mutually exclusive. The two perspectives share some commonalities, and some STEM faculty would consider themselves members of both communities.

DBER investigates teaching and learning in a manner deeply grounded in a particular discipline. It is also very often connected to and draws from science education, educational psychology, cognitive science, and educational evaluation. In the United States where it is well-funded at the national level, DBER is not only concerned with disciplinary knowing/learning, but it also often seeks to establish generalizable knowledge that can apply across individual classes, instructors, and institutions. Faculty engaged in DBER often draw on similar theories, regardless of their specific STEM field; as the 2012 report from the National Research Council points out, "DBER is heavily influenced by constructivist ideas of learning, which propose that students generate understanding and meaning through experience." However, the extent to which individual DBER studies are connected to broader theories of learning and teaching can vary widely.

SoTL, on the other hand, is concerned with both knowing/ learning (within and across disciplines) and classroom practice/ experience (almost always at the level of an individual instructor). As a result, SoTL is much more strongly focused on the experience of particular instructors and particular classes as well as presenting that experience in a rich, contextualized manner—using quantitative methods, qualitative methods, or a mixture of both (Divan et al. 2017)-that others can use as a source of insight and understanding. As pointed out by Hutchings and Huber (2008), SoTL has a much more complicated relationship with theory. SoTL projects can be connected to theories within the same discipline or theoretical frameworks from other disciplines, or they may even generate theoretical perspectives. As Hutchings and Huber (2008, 241) write, "Yes, the scholarship of teaching and learning is a knowledge-building activity, but its purpose is not to generate or test theory. The purpose is to improve student learning." And that may, in the end, be one of the important differences between SoTL and what is viewed as DBER in a particular region or discipline.

Many STEM faculty who are new to SoTL often make the unspoken assumption that the goal is always to find knowledge or information that, if not fully universal, is clearly generalizable. While this assumption may be true for work commonly viewed as DBER, the same assumption, and the concerns and anxieties it can fuel, can pose a real barrier for STEM faculty engaging in SoTL. In part, this assumption blurs the distinction between "generalizability" and "applicability." Scholarly work such as SoTL done in a particular context and made public in a rich way can be applicable to other contexts and situations, either in the same discipline or across disciplines. Applicability of SoTL across disciplines is not limited to disciplines that share similar characteristics (epistemologies or methodologies). For example, STEM faculty can learn from the work of Feito and Donahue (2008). Feito is a psychology professor while Donahue is a faculty member in English. The two collaboratively looked closely at students' annotation of complex readings in the interdisciplinary seminars each of them taught at their respective institutions. Their work would be useful for STEM faculty interested in using annotation to help students learn how to read the primary research literature, something that students often find to be very daunting. Another example is the work of Emerson (2017), who draws on experience in English, writing across the curriculum, and writing in the disciplines to provide a thoughtful framework for STEM faculty to think about how they might approach writing in STEM curriculum to help their students develop this critically important skill. Both Feito and Donahue and Emerson demonstrate how SoTL work from one discipline can inform work in other disciplines to improve student learning.

## "Ecological fieldwork" is a better analogy for SoTL than laboratory experimentation

Integral to the practices of science is the planning and carrying out of systematic investigations. Part of that planning is deciding what variables can and should be controlled or measured. Many STEM faculty are familiar with the widely held view that the gold standard for demonstrating causal relationships in science is an experimental study with a rigorously designed control. But automatically assuming that the exact same consideration applies to SoTL work is a mistake.

One of the best analogies I ever heard for SoTL came from Spencer Benson, a Carnegie Scholar and microbiologist, who in 2007 commented to me that he saw SoTL as very similar to ecological research. I've thought about his comment since then and have grown to appreciate the wisdom of Benson's analogy. Ecological systems are characterized by patterns that arise from the interactions between organisms or between an organism and its environment. As Ghazoul (2020, 5) writes, "The environment is the stage upon which interactions unfold." These systems also commonly display what is often called emergent complexity, where individual components of an ecosystem interact to give behavior and patterns that are very different from what these same individual components display in isolation. Often this emergent complexity is contingent on past events and perturbations; the same seed landing in two different locations can give rise to different outcomes.

The similarities between this description of ecological systems and student learning are clear. What and how and why students learn is profoundly shaped by many interacting factors: personal characteristics and experiences of each student, how the classroom learning environment is designed, interactions between students and faculty as well as between students themselves. Faculty routinely comment how different sections of the same course, or the same course taught in different years, can be significantly different experiences with different outcomes. To fully understand the emergent properties and outcomes of the system under study, whether an ecosystem or (for SoTL) a single course or set of courses, many different aspects must be examined. Grauerholz and Main (2013) provide a thoughtful analysis of the near impossibility of controlling in a SoTL project for all the factors that can influence learning.

While it is not always possible or necessary to have a "control" in the classical sense for ecological fieldwork research, it is still expected that the research will reflect the practices of science as well as the standards of scholarly work. But this point is not unique to ecology; a similar situation can be found in other areas of science. Astronomers studying distant galaxies or a chemist making a new molecule for the first time are also in positions where having a control may not be possible or necessary, yet the work will still be expected to reflect the practices of science. Poole (2013, 2018) recommends that more SoTL projects ask "what is happening?" or even start by interrogating one's assumptions about teaching, learning, and students. Many of those starting points will lead to SoTL projects that would be very difficult to design an experimental control for. Finally, in his keynote address at the 2013 conference of the International Society for the Scholarship of Teaching and Learning, Lee Shulman, president emeritus of the Carnegie Foundation, eloquently argued for the value of situated studies that are frequently done in SoTL (Shulman 2013).

I am not arguing against controls in SoTL projects where appropriate. What I'm challenging is the default assumption by many faculty in SoTL workshops I've facilitated who immediately think "I need a control group." I see this assumption as linked to a second assumption often made by STEM faculty, that the only type of question that a SoTL project can ask is what Hutchings (2000) described as a "what works" question, often modified by faculty in their minds to a "what works better" question. But "what works" is only one of several types of questions described by Hutchings, who also pointed out that SoTL projects can be focused on "what is," "visions of the possible," and "formulation of new conceptual frameworks." These types of questions seek to understand/explain or provide new perspectives and ways of thinking about teaching and learning. They often focus on relationships between various aspects of learning and the many factors that can impact the learning process. The projects that come out of such questions are similar to describing an ecosystem, and as a result often don't require controls.

A very nice example of SoTL work in STEM where a control would not have been appropriate or helpful is the work of Chua et al. (2020), which described how the authors developed a rubric to examine more closely the fieldwork journals maintained by earth science students at various points in the curriculum. After providing an overview of the centrality of fieldwork experiences in undergraduate earth science education, the authors provided a thoughtful description of the process they used for developing a rubric that would allow for close examination of fieldwork journals to look for evidence of attributes identified by their institution as the qualities it hopes to develop in students. Their analysis identified both attributes that were clearly present in the journals as well as some for which there was little or no evidence. The authors also identified possible next steps for future investigation of student learning in this context.

# SoTL work by an individual isn't isolated from other contexts or work done by others

STEM faculty know from their disciplinary experiences that all research projects build on prior work by others. That's why making work public is such an integral part of any form of scholarship. Building on prior work can involve using relevant theoretical frameworks or experimental methodologies developed and made public by others. Prior work can also provide information that can help contextualize the results of the faculty member's investigation. When faculty begin a research project in a new (to the faculty member) area of science or engineering or mathematics, a significant amount of time is spent finding and reading papers in the new area that have been published in the past. No one is surprised by this. In contrast, many faculty still view teaching as a largely private activity. This carries over to how faculty new to SoTL conceptualize their initial efforts and the questions that drive the work. Their efforts to connect their investigation and the evidence they have gathered to other ideas are often limited, and this ends up limiting how well the work reflects the standards of scholarly work (Glassick, Huber, and Maeroff 1997) such as clear goals, adequate preparation, and reflective critique.

As with disciplinary research, no investigation in SoTL is an "isolated system," completely disconnected either from prior work by others or relevant theoretical frameworks. It is important that both the questions driving a faculty member's SoTL work and the analysis of the evidence collected be grounded in relevant theoretical perspectives whenever possible. The project should also clearly build on prior work by others, and the connections should be clearly communicated in public presentations of the work. One challenge of engaging in SoTL, compared to traditional disciplinary scholarship of discovery, is that the situated studies that characterize SoTL often create a need to connect this work to scholarship done by other faculty who may be in different fields. Chapter 12 in this volume presents a taxonomy for SoTL that may be a useful resource for faculty to think about the characteristics of their SoTL projects, how those characteristics might relate to work done by others, and possible terms that could be useful in searching for work that connects with a faculty member's SoTL project.

Connecting to the works of others also helps make SoTL work stronger in that it offers opportunities to connect the work to relevant theoretical frameworks (Hutchings and Huber 2008). Given the situated nature of SoTL, the balance between theory and evidence gathered will vary with different SoTL projects. Miller-Young and Yeo (2015) provide a helpful overview of the multiple theoretical perspectives and methodologies related to them. Faculty who choose to pursue SoTL projects that are more integrative or interdisciplinary in nature will find Miller-Young and Yeo's work a useful overview of these topics.

One challenge for faculty who are shifting their focus to a SoTL research agenda is where and how to search for relevant work by others. Many STEM disciplines have peer-reviewed journals on teaching and learning in the discipline, such as the Journal of Chemical Education, CBE-Life Science Education, and the Journal of Geoscience Education. These journals are very helpful for projects that are clearly focused in a single discipline. There are also journals such as the Journal of College Science Teaching and the International Journal for STEM Education that have a clear focus on teaching and learning in STEM while not being limited to a single discipline. But faculty whose SoTL research focuses on questions broader than individual STEM disciplines-for example, how students read texts or write in STEM courses or questions related to the incorporation of humanities or social justice components into STEM courses-will need a different approach to searching the SoTL literature. The ERIC database of education research and information, sponsored by the Institute of Education Sciences (IES) of the US Department of Education, can be a useful tool for faculty moving into SoTL work. MacMillan (2018) approaches the SoTL literature review from

the perspectives of both process and product, providing very useful suggestions for helping faculty effectively do both the searching and the writing that the more diverse nature of SoTL often requires. She also presents examples of what she views as well-done literature reviews, along with comments identifying the strengths of each. Colleagues—in the same department, another STEM department, or departments outside of STEM—can also provide valuable suggestions for potentially useful sources. Finally, conferences sponsored by organizations such as the International Society for the Scholarship of Teaching and Learning or the Society for Teaching and Learning in Higher Education will draw individuals engaged in SoTL from a wide range of disciplines. Attending one of these conferences can be very helpful in terms of learning about work that would be relevant to a faculty member's SoTL project.

# SoTL can involve diverse methodologies, diverse conceptual frameworks, and diverse contexts beyond a single course

The SoTL projects that STEM faculty choose to pursue are very often focused on disciplinary concepts, practices, and skills. That makes a lot of sense; disciplinary-based investigations have been an important current in SoTL since the beginning. For many faculty, their disciplinary identities are central to how they view their careers and scholarly work. But as with some disciplinary research projects, SoTL projects also offer opportunities to connect to other conceptual frameworks that come from other disciplines or are larger than a single discipline. In recent years, rich descriptions of what characterizes science as a way of knowing have been developed. A faculty member choosing to use as a resource for their SoTL work either the Inquiry Model of Science (Harwood 2004, Robinson 2004) or the "science and engineering practices" developed as part of the Next Generation Science Standards (National Research Council 2012b) will be connecting their question, evidence, and analysis to broader conceptual frameworks that cross STEM disciplinary boundaries. For example, SoTL work done by a chemistry faculty member that connects to these frameworks is likely to be more readily understood and potentially utilized by biology or physics or geoscience faculty in either their teaching or their own SoTL work. When faculty take the time to connect their SoTL work to these broader frameworks, they create new opportunities for the insights from their particular investigations to become "community property" (Shulman 1993) for a larger number of colleagues.

There are other contexts larger than a single course that STEM faculty who engage in SoTL may consider using as part of their work. McKinney, Friberg, and Moore (2019) effectively argue that SoTL work can make important contributions at any of several different levels: program, department, institution, or discipline. As many undergraduate STEM programs share a similar vertically structured curriculum, investigation of teaching and learning in one discipline/department, presented in a rich contextualized manner, can provide ideas and be of use for faculty in other STEM departments.

Finally, there is growing recognition of the contributions that SoTL can make to assessment efforts. Assessment and SoTL share a common goal of improving student learning and doing so in an evidence-based manner. However, there are some important differences between the two. SoTL is rooted in the classroom experience, whether of a single teacher or a group collaborating in their inquiry. And the results of that inquiry are made public in some way. In contrast, assessment operates largely at a program or institutional level and the results are often not made public but shared only with certain parties. But these differences don't mean that bridges can't be built between SoTL and assessment. For example, assessment work may raise specific questions about some aspect of student learning that one or more faculty members may decide to use as a starting point for their own inquiry work. Faculty who are interested in pursuing a path in SoTL which includes clear connections to assessment work are encouraged to look at the work of Dickson and Treml (2013) as well as the volume edited by Friberg and McKinney (2019) for more detailed explorations of this area.

# SoTL can be disciplinary, multi-disciplinary, or interdisciplinary

When SoTL began, it was very much disciplinary-based. A significant fraction of current SoTL work (e.g., signature pedagogies, decoding the disciplines) is still clearly rooted within individual disciplines. Signature pedagogies are ones that instruct novices in "critical aspects of the three fundamental aspects of professional work-to think, to perform, and to act with integrity" (Shulman 2005). Work by STEM faculty to describe signature pedagogies in disciplines such as biology, mathematics, computer science, and physics can be found as individual chapters in the volume edited by Gurung, Chick, and Haynie (2009). Decoding the disciplines is a process for examining the mental operations required by a particular discipline, where undergraduate students encounter bottlenecks in carrying out those mental operations, and how faculty might model these mental operations and provide feedback to students on their efforts. The volume edited by Pace and Middendorf (2004) provides examples of this approach used in astronomy and genetics/molecular biology; Miller-Young and Boman (2017) describe how decoding methods can be used in a faculty community of practice. Additional examples of disciplinary-based SoTL work by STEM faculty can be found in the volume by Dewar, Bennett, and Fisher (2018).

But STEM faculty are now asking questions that move beyond the boundaries of a single discipline. The report from the National Academies of Science, Engineering, and Medicine (2018) on integrating science and engineering with humanities documented a number of questions about the impact of this integration on student learning. Many of the questions presented in that report were not simply variations on "did the students learn science concepts better" but asked about the impact of such integration on student preparation for work, life, and citizenship. Investigating these questions will require STEM faculty to engage with colleagues in disciplines such as those in the humanities and use methodologies from outside their home discipline.

There is growing interest in learning more about student experiences in relation to considerations of diversity, equity, and inclusion. Romo and Rokop (2022) describe an honors seminar course they developed which aimed to highlight the discoveries of scientists from historically marginalized communities. Students in the course (60% of them STEM majors) read selected articles from the primary literature focused on discoveries by scientists from these marginalized groups as well as biographies of some of the same scientists. The students also had opportunities to interact with guest speakers and choose scientists to highlight in final papers and presentations. In addition, an increasing number of STEM faculty are asking questions about the relationships between social justice, disciplinary content, and student understanding and perspectives that are developed through courses for STEM majors. Morales-Doyle (2017) has described what he calls "justice-centered science pedagogy" and presented a high school advanced placement chemistry course as a case study of this approach. Fisher (2012, 2019) has outlined a "vision of the possible" for how undergraduate chemistry education could incorporate the challenge of sustainability across the curriculum. Leydens, Johnson, and Moskal (2021) used focus groups and student interviews in a control systems course for undergraduate engineering students to explore student perceptions of social justice in the context of engineering. Ali, Harris, and LaLonde (2020) incorporated social justice themes into a sophomore organic chemistry course by looking at the history and social impact of key compounds, surveying students to see how this incorporation affected student awareness and engagement. Finally, Miller-Young, Jamieson, and Beck (2023) studied students' sense of belonging in a large, first-year engineering course.

SoTL work focused on questions that connect student learning in STEM courses with diversity/equity/inclusion/social justice perspectives can reach across disciplines in several different ways. McKinney (2013) uses a typology developed by Lisa Lattuca to describe these different ways: informed disciplinarity, synthetic interdisciplinarity, transdisciplinarity, and conceptual interdisciplinarity. I will focus on the first two categories for illustrative purposes in this chapter, but that is not to suggest that SoTL can't involve the interdisciplinarity of the other two categories in Lattuca's framework. Informed disciplinarity is where "disciplinary questions may be informed by concepts or theories from another discipline or may rely upon methods from other disciplines, but these disciplinary contributions are made in the service of a disciplinary question" (McKinney 2013, 4). In contrast, synthetic interdisciplinarity is where "research questions bridge disciplines. These bridging issues and questions are of two subtypes: issues or questions that are found in the intersection of disciplines and issues and questions that are found in the gaps among disciplines. . . . In both subtypes, the contributions or roles of the individual disciplines are still identifiable, but the question posed is not necessarily identified with a single discipline" (McKinney 2013, 4).

One example of informed disciplinarity is the work of Bennett and Dewar (2013), who chose to use think-alouds as a method for gathering evidence of how students thought about the concept of mathematical proof. Think-alouds are a method developed by psychologists where participants are directed to verbalize out loud their thoughts as they complete a task. Using a method from a different discipline allowed Bennett and Dewar to collect evidence that eventually allowed them to develop a taxonomy of mathematical knowledge-expertise. A second example of informed disciplinarity would be a STEM faculty member using the "difficulty paper" developed by Mariolina Salvatori for use in literature courses as a way of gathering rich evidence of where students in a STEM major have difficulty reading papers from the primary literature and details of those difficulties. While not situated in a STEM course, Cisco (2020) provides an example of how using the difficulty paper in a "Great Works" course helped students address their confusion without dismissing it. At the end of the paper, the author provides an example of how the difficulty paper might be used in the context of understanding a mathematical equation.

One example of synthetic interdisciplinarity is the work of Manarin, Carey, Rathburn, and Ryland (2015). They examined critical reading by students in four different courses, including a STEM course for non-science majors. Another example of synthetic interdisciplinarity is the conversation between Takayama (a microbiologist) and Reichard (a historian) documented in the chapter they contributed to the volume edited by McKinney (2013). The overarching theme of their conversation was exploring student learning through unconventional genres (from the perspective of their respective disciplines). Reichard incorporated research posters (widely used in STEM disciplines) into a history course final project, while Takayama asked students to create a "Bug Book" (reflecting the much more creative approach characteristic of the humanities) to supplement the lab notebook maintained by students in a microbiology course. The chapter captures key points in the cross disciplinary dialogue between the two that developed over time.

# Inquiry in SoTL can be individual, collaborative, or collective

In terms of the last two guiding principles that I've presented in this chapter—the importance of frameworks outside the faculty member's discipline and the multi-disciplinary/interdisciplinary possibilities within SoTL—I want to call attention to Richard Gale's argument for the importance of collaborative and collective inquiry in SoTL (Gale 2008). He first describes the possibilities for collaborative inquiry, where two or more faculty work together in some way on questions related to student learning. Those questions could be identical, linked in some way, or sufficiently similar to be comparable. Gale then moves to describing what he calls "collective scholarship," where the process of inquiry is shared among an entire department, a single institution, or a system of higher education. One example of this type of inquiry is the work described by Goldey and collaborators (Goldey et al. 2012). They worked on transforming the first-year biology course from a content-driven course to one that focused on developing both core knowledge and core skills through diversified pedagogical practices. I think STEM faculty looking to change their career focus to SoTL work could be well served by thinking deeply about Gale's suggested approaches. There are many questions related to student learning in STEM courses that cross the boundaries between sections of the same course or different courses in a single curriculum and that would lend themselves to collaborative inquiry.

## Conclusion

A change in career focus from traditional research in a STEM discipline or teaching with little or no scholarly activity to active engagement with SoTL can be both unsettling (Kelly, Nesbit, and Oliver 2012) and exhilarating for individuals trained in STEM disciplines. At the same time, faculty considering a shift in research/ scholarly focus from a traditional disciplinary area to SoTL will, I hope, be well served by reflecting on the principles presented in this chapter early in that process. Such reflection will be helpful for considering the larger trajectory of this change in an individual's scholarly work. While any transition in an individual's career can involve some stress and challenges in the beginning, there are also rewards to focusing one's professional activity on SoTL. My hope is that the principles outlined in this chapter will help faculty make this transition in a rewarding and productive way.

## **Reflection Questions**

- How would you describe your SoTL work at this point in time?
- Based on your description, which of the guidelines presented in this chapter would be most relevant now?
- Based on how you see your SoTL work developing over the next five years, which of the guidelines presented in this chapter would become important to keep in mind at some future point?

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#### CHAPTER 8

## **ENGAGING WITH NUANCE**

#### Authentic SoTL Engagement for Scholars in the Humanities

#### Nancy L. Chick, Rollins College, US

Mid-career is a time when many faculty hit a wall. At tenuregranting institutions, these faculty have earned that sense of security and a promotion. Faculty at institutions that don't grant tenure have an established track record of accomplishments and probably an identity based on this track record. At this long middle phase in their career trajectory, these faculty may "find themselves asking: What's it all about? Where do I go from here?" (Monaghan 2017, A9). Many have gained confidence in the classroom, so they enjoy teaching more at this stage. At the same time, they may feel like they've gone as far as possible with their original research agenda, so they yearn for something new-new learning, new colleagues, new challenges-but some are uncertain about what would count for the next promotion (Baker 2020). A common path forward is through leadership roles. Campuses typically encourage this service to the institution, but it's not for everyone. Another path forward for some is in shifting their research agenda to align with their teaching. This path often leads mid-career faculty into SoTL.

Some humanists<sup>1</sup> who've considered doing SoTL have found it uncomfortable in part because of the significant shift in the objects of study (e.g., from written texts, often by long-dead authors, to

<sup>1</sup> I use the term "humanist" and "humanistic" to refer to colleagues in the humanities (e.g., literature, philosophy, languages, history). Although I could use phrases like "colleagues in the humanities" or "humanities scholars," it's helpful to also have a single-word term for our collective identity.

the live students in our classes). They may also find it "foreign" and even unwelcoming if they've run into explanations or examples with "well-defined questions, controlled studies, systematic analysis, or objective results," all of which "bear little resemblance to" their regular scholarly practices (Bass and Linkon 2008, 246). Later in this book, Karen Manarin reflects on her experience with similar language that "tripped us up" while co-authoring a SoTL book with colleagues in engineering and education (Miller-Young, Yeo, and Manarin, chapter 17). I won't dwell on these challenges here since plenty has been written about them (e.g., Bass and Linkon 2008; Chick 2013; Potter and Wuetherick 2015; Chick 2015; Bloch-Schulman and Linkon 2016; Bloch-Schulman, Conkling, Linkon, Manarin, and Perkins 2016; Manarin 2016, 2017, 2018; Hovland 2021).

Instead, in this chapter, written in the voice and style of a humanistic scholarly essay,<sup>2</sup> my hope is threefold. Most importantly, I want to help interested colleagues in the humanities embrace SoTL as an integral part of the next phase of their careers while remaining authentic to their disciplinary expertise and epistemology. Illustrating the importance of this support for authentic disciplinary engagement, the previous chapter by Matt Fisher highlights some key principles—using language, concepts, and metaphors that are familiar to them—to guide his colleagues in science, technology, engineering, and mathematics in understanding and engaging with SoTL. My second goal serves the first. A decade ago, Gary Poole encouraged faculty working together across disciplines to navigate the "challenge of translating disciplinary research languages and of understanding research cultures" by starting at "square one": reflecting on and articulating an answer to the question, "what is research?" (2013, 136) My third hope, then, is to support my colleagues in the

<sup>2</sup> This includes my thoughts captured into these footnotes. The process of reading these clarifications, additions, and asides may feel unusual, but I encourage readers to follow me—from above to down here and back—to experience some of the layers of humanistic thinking and writing.

humanities as they respond to Poole's question and communicate their authentic work in SoTL's multidisciplinary spaces.

#### Articulating Humanistic Choices in SoTL

At the 2018 meeting of the Arts and Humanities Interest Group of the International Society for the Scholarship of Teaching and Learning (ISSOTL) in Bergen, Norway, I was one of a dozen or so members who drafted "Characteristics and Choices of SoTL from the Arts and Humanities."<sup>3</sup> Some of what we drafted is aspirational, what we'd like to see more often or feel free to do if we knew this work would be accepted in broader SoTL circles. In fact, throughout this chapter as I write that humanistic SoTL scholars do this or that, I'm referring to those who operate authentically from their disciplinary background, or those who hope to do so. In some cases, projects with the characteristics we described may not yet even exist. Also, we didn't mean to imply that any of these characteristics or choices is unique to the humanities: some apply to other areas as well, but each is indeed descriptive of the humanities, and the totality represents the humanities most fully.

On that early Saturday morning on the last day of the conference, we left our list in a single level of bullets ending with "More . . .?" so our brainstorm remains what we called "An *Uncomprehensive, Non-Hierarchical, Not-a-Checklist* List" (emphasis in original). (See figure 8.1 or https://bit.ly/ISSOTL\_AHIG-chars.) In this chapter, I sort the list into meaningful sections describing humanistic SoTL: our purpose, our questions, artifacts and evidence, meaning-making, and sharing our work. My humanistic perspective is situated

<sup>3</sup> Although the list of participants encompasses both the arts and humanities, most of the members present were from the humanities. In fact, I initiated this group as the Humanities Interest Group, but after a few years, some members from the arts joined because they found it welcoming to their approaches as well, and they wanted the arts recognized explicitly. They acknowledged the significant overlap between the two areas, but some objected to the frequency with which the arts "fall under" the broader umbrella of the humanities. They wanted to be named. And so we changed the name to the Arts and Humanities Interest Group.

within my specific discipline, so at times my language, analogies, and examples will be drawn from literary studies.

#### Characteristics & Choices of SoTL from the Arts & Humanities

An Uncomprehensive, Non-Hierarchical, Not-a-Checklist List Brainstormed at the Early-Saturday-Morning Meeting of the Arts & Humanities Interest Group at ISSOTL18 in Bergen, Norway

- Embraces narrative, descriptive, exploratory <u>"what is?"-type SoTL questions</u> (Hutchings, 2000)
- Storytelling
- Artifacts of student thinking, learning, expression
- Texts are important, and broadly defined
- Contains meaningful reflection
- Engages with nuance
- Attention to what, as well as how meaning is articulated
- Rich with quotes and others' voices
- Intentional about citation style that foregrounds valued bibliographic information (e.g., full name of author, not as concerned about date of publication)
- Authentic (even poetic?) ways of describing methods
- Uses methods such as narrative inquiry, close reading, thought experiments, meditations
- Constructs arguments, rather than starting with a hypothesis (Stephen Bloch-Schulman suggested they're
  more abductive than inductive) -- Here's a description of it as originally described by Peirce, and here's
  brief description of the different types of reasoning)
- Presented not only via essays and articles, but also as poetry, drama, videos, drawings, graphic short stories/novellas, role play, et al.
- More....?

[ To share a simple URL for this page, use https://bit.ly/ISSOTL\_AHIG-chars ]

Figure 8.1. Characteristics and choices of SoTL from the Arts & Humanities

#### Our Purpose: The Missing Characteristic

The list developed by the interest group doesn't address why humanists do SoTL, and why we might do it in specific ways. Literary scholars would call this missing piece a lacuna, a gap in a narrative that leaves readers confused and challenged to fill in the blank. This lacuna is problematic in multidisciplinary spaces like SoTL where the emptiness may be filled in ways we don't intend. In "Identifying a Tradition of Inquiry: Articulating Research Assumptions," Carol Berenson notes the consequences of such silence: "When paradigmatic assumptions are not uncovered and articulated, all research is held up to the same standards—those in the dominant paradigm. This can position some research as not research at all" (2018, 43). But we in the humanities rarely step back and talk about the fundamental purpose of what we do, as if what we do and why we do it are self-evident. They're not. Here's a good place to repeat the point that I don't mean to imply that the humanities is alone in any one characteristic. Our tacit assumptions about the purpose of our work have created a kind of expert blindspot, making it difficult to "see and defend for others the rigor of our work, including the logical progression of what counts as evidence, how we generate and analyze that evidence, and the claims we make about the broader relevance of our research when all is said and done" (Berenson 2018, 42).

It's not hard to come up with a pithy description of the ultimate purpose of the humanities: "Put simply, the humanities help us understand and interpret the human experience, as individuals and societies" (National Humanities Center, n.d.). Embedded in this seemingly simple explanation are some of the nuances of our "research paradigm," or our "tradition of inquiry." Berenson's chapter helpfully walks through positivism and constructivism, "the farthest endpoints along a continuum" of paradigms and the two most visible in SoTL (2018, 43). Within this framework, humanistic SoTL research is most aligned with a constructivist approach: "Situated and visible researchers reflect on their impact and assumptions" and develop "emergent" projects that "begin with the data, and from there [develop] concepts or theories"<sup>4</sup> about "subjective, perceived, interpreted realities of learning" (46, 45). Berenson notes that this approach is also "the most likely to be challenged on the SoTL landscape" (43), in part because of the silence described above, which leaves the positivist voice as all that gets heard, privileging its assumptions about "research as an objective, value-free endeavor" that's aimed at testing hypotheses by collecting data from "a large number of participants (which is typically required)" and designed for replication and "empirical generalizability" (45, 48, 49).<sup>5</sup> To make sure our work isn't held up to the standards of the wrong paradigm, we need to be explicit about why and how we do SoTL.

<sup>4</sup> Many humanists use the terms "evidence" or "artifacts" for what they collect. More on this shortly.

<sup>5</sup> For a more detailed discussion of these research paradigms and their relevance in SoTL, read Berenson (2018), Poole (2013), and chapter 3 in Yeo, Miller-Young, and Manarin 2023.

Gently adapting the National Humanities Center's description, we can explain that **humanistic SoTL aims to help educators understand and interpret the student experience, as individuals and groups.**<sup>6</sup> This broad purpose undergirds the characteristics listed by the interest group, beginning with the kinds of questions we ask.

#### **Our Questions**

- "Embraces narrative, descriptive, exploratory 'what is?'-type SoTL questions"
- "Engages with nuance"
- Pays "Attention to what, as well as how meaning is articulated"

As part of the larger project of understanding and interpreting the human experience, SoTL scholars in the humanities ask questions that seek to understand and interpret the student experience or rather, students' experiences.

#### **Questions to Understand**

As the interest group noted, we tend to ask "what is?" questions. Described in Pat Hutchings's taxonomy of SoTL questions, these open-ended questions explore "*what it looks like*, what its constituent features might be," in the sense of "*what is* happening in the course" (emphasis in original; 2000, 4–5). This SoTL question sets up descriptive or narrative projects that aim for "a deeper understanding of what's going on for students" (Linkon 2000, 64). This question is also illustrated in Randy Bass's canonical article "The Scholarship of Teaching: What's the Problem?" (1999). We often focus on his use of "problem" as a way to problematize teaching in the same way we do research, but his titular question of "What's the problem?"

<sup>6</sup> Certainly, we also need to understand and interpret the experiences of teachers. However, as I've argued elsewhere, we need to explicitly name student learning as the *ultimate* purpose of SoTL, "the goal, or the outer edge of its benefits, envisioned by design from the beginning" because "once that purpose is fulfilled or that goal is achieved, it's rare to continue further" (Chick 2022, 19). This is a necessarily nuanced argument, so please see the section "Purpose: Why We Do SoTL" in Chick 2022 (18-21).

is the focus of the project he describes in the article, as well as a preview of the question Hutchings would include in her taxonomy the following year. Here, the question "What's the problem?" calls for exploration, for going "beyond 'best practice' and 'what worked' to get at the questions about why and how things worked—or didn't work" and even come to a new "understanding of what it meant for something to 'work" (Bass and Eynon 2009, 7).

I would rephrase Hutchings's question by asking, "What is really?" or "What's really happening?" or "What does it really look like?" Humanists seek a deeper understanding, as Linkon notes, because we see students and their experiences as highly complex and largely invisible to us, informed by all aspects of the worlds around them and far more than what we can observe. So when we teach, what we assume about our students—what they're thinking, how they're doing something, why they're doing it, what they understand, what they don't understand and why—is often wrong. This question keeps us open to being surprised—pleasantly or not. The emphatic "really" thus reminds us to pause, check our assumptions, and look more carefully to illuminate what's actually happening. This tendency to stop and look more closely may be the defining ethos of humanistic SoTL work: we "engage with nuance."

Another nuance of many humanistic approaches is resisting universals that erase the significance of context, identity, and experience, so we might also amend "what is?" to articulate the situatedness of teaching, learning, and SoTL. Chng Huang Hoon and Peter Looker, for example, add "where" to Hutchings's questions, challenging "the dominant discourse where the Western location is unconsciously amalgamated with the universal and treated as default 'common sense' and other locations are theorized out of the picture totally" by "bringing cultural contexts to bear" (Chng and Looker 2013, 134, 138). Following through on Chng and Looker's attention to cultural context would remind us to attend to the diversity of experiences within any given group, so we might also add "for whom?" Finally, the COVID-19 pandemic taught us that teaching and learning change, so we would add "when" to consider relevant historical moments like a global pandemic or an influential political environment. Box 8.1 unpacks some of these abstract questions with more specific examples.

#### Box 8.1. Some Examples of Questions to Understand

The initial formulation of a question might begin with *What is? What is*—really? *What's* really *happening? What does it* really *look like? Where? For whom? When?* 

These broad questions might evolve, when applied in practice, to increasingly specific questions like the following:

 $\rightarrow$  What do my students really understand about x concept/skill?\*

→ How do different students in my class understand x differently? →What does it look like for only some of my students to understand x?

 $\rightarrow$  What do my students not understand about x?

 $\rightarrow$  How do different students in my class experience this difficulty differently?

 $\rightarrow$  Do different students in my class have different reasons for this difficulty?

 $\rightarrow$  What do these difficulties look like?

→ What are the consequences of this difficulty?
 → Are the consequences different for different students in my class?

\* The question of "where?" is signaled by focusing on "my students," and "when?" by the present tense verb "do understand." Rather than writing a long, convoluted question, we would highlight these details when designing and then presenting the results of this project. For example, I would foreground that my students are at Rollins College, a small, private, residential liberal arts college just outside Orlando, Florida, a major metropolitan area in the southeastern US, and that they're enrolled my literature course in the wake of the global pandemic (fall 2022). This specificity of where and when is similarly captured in other questions' verb tenses and pronouns.

#### **Questions to Interpret**

The questions above delve into understanding students' experiences, largely through a descriptive lens. The interest group's characteristic of paying "attention to what, as well as how meaning is articulated" acknowledges that humanistic work is also interpretive work. To parse this short phrase more explicitly, we attend to both what meaning is articulated and how it's articulated. Some of our interpretive SoTL projects might thus begin with the question, "What does it mean?" This question reaches beyond the descriptive work of explaining surface, literal, or denotative (i.e., standard, straightforward) meanings and toward implied, figurative, or connotative meanings (i.e., associative, suggestive).<sup>7</sup> In literary study, we talk about unpacking multiple meanings because "what appears on the surface is never the whole story," including with "seemingly simple texts" (Linkon 2011, 10), so "even after one meaning has been grasped, ... it inevitably holds still more possible meanings" (Corrigan 2019, 7). So answering "What does it mean?" requires nuance.

In attending to "how meaning is articulated," our interpretive SoTL projects might lead to the question, "**How is it expressed**?" This question reflects our recognition that specific choices in words, phrasing, syntax, punctuation, spacing, and other elements of language are meaningful—or meaning-full. When Mariolina Rizzi Salvatori reads her students' writings about difficult texts, she looks beyond what they say, focusing on "'markers'... that indicate movement toward more complicated forms of thinking," such as complex sentences: "To use 'but' is to imply that there is another possibility to consider. 'I say this because' marks a moment of reflection, of accountability" (2000, 89).

Elsewhere, Salvatori describes her SoTL as responses to the question, "What does it mean for me to teach this text with this

<sup>7</sup> The interpretive expansion of "What does it mean?" is easily misunderstood, so it's worth explicating. In the "Artifacts and Evidence" section of this chapter, I'll address the "it" in the question, or *what* we interpret in humanistic SoTL. In the "Meaning-Making" section, I'll address the process that follows the question, or *how* we interpret.

approach to this population of students at this time in this classroom?" (2002, 298) This use of "What does it mean?" points to another way we ask this question, as in "Why is it important?" or "What does it matter?" (Blau 2003, 52) Asking why something is important leads us to broader insights. In describing meaningful SoTL questions, Tony Ciccone notes that they "go beyond the problem from which [they] arose" (i.e., the specific teaching and learning situation) "to elucidate some key insights into the big issues about student learning and the frameworks that would explain them" (2018, 20). Ingie Hovland illustrates Ciccone's point in her study on her religion students' use of pre-reading maps to reveal and support their reading practices. After analyzing the specific learning of the mapping activity, she opens up her query to consider why it matters. She observes the students differently approaching a habit that experts have "automated," a process she calls "making-whilereading" through which readers "reach their own realization of what a reading can be in the humanities, and who they can be as a reader-namely someone who is trying to take steps to understand, discuss, and contribute to a web of ideas about humanity" (2021, 40). Hovland's exploration of the larger processes of reading as a humanist is an example of the wider insights gleaned from asking "why is it important?" Like Ciccone's claim that meaningful SoTL questions "elucidate some key insights into the big issues," Hovland argues that such extended inquiry allows for "conceptual generalization," a move that translates SoTL findings beyond a project's local setting to "help another instructor understand the same conceptual situation in her own, different setting" (Hovland 2021, 42).

While Hovland illustrates a conceptual move in response to "Why is it important?" another is guided by a contextual move. Students' written texts may tell us a great deal about themselves and the worlds in which they live. As Sherry Linkon explains, "Writers"—including student writers—"cannot help but employ the cultural vocabulary of the moment," so a student text is "influenced and illuminated by its context even as it provides a lens for understanding the context of the text and our own culture" (2011, 10). In some of our SoTL work, we might thus ask, "What does it elucidate about the cultural, historical, geographical, political, socioeconomic, etc. moment in which it was written?" Certainly, if we continue to ask "What does it mean?" and "Why is it important?" much of the SoTL coming out in the 2020s, whether explicitly or implicitly, will reveal more and more about learning and teaching in a global pandemic, in an era of misinformation, and in a time of political divisiveness. Box 8.2 illustrates how some of these questions can be developed more specifically in practice.

#### Box 8.2. Some Examples of Questions to Interpret

The initial formulation of an interpretive question would begin with *What does it mean*?, a question that likely has more than one answer, inviting the follow-up question, *What are the possible interpretations*?

What does it mean? can develop in a few ways:

 $\rightarrow$  How is it expressed?

- → What are my students saying, explicitly and implicitly?\*
  - $\rightarrow$  How are they saying it?
  - $\rightarrow$  What are my students not saying, and what's happening in the unsaid?
- $\rightarrow$  *Why is it important?* 
  - → What does it elucidate or make clear?
  - → What does it contribute to our understanding?

 $\rightarrow$  What does it elucidate in or contribute to our understanding of student learning?

 $\rightarrow$  What does it elucidate about the cultural, historical, geographical, political, socioeconomic, etc. moment in which it was written?

\*See the explanation of the role of verb tenses and pronouns in Box 8.1.

#### **Our Artifacts and Evidence**

- "Artifacts of student thinking, learning, expression"
- "Texts are important, and broadly defined"

In our goal to understand and interpret human experience, humanists look to what we call "texts," objects or phenomena that "generate meaning" as we read, analyze, interpret, and otherwise make meaningful. Humanistic scholars "pay close attention to language" (Corrigan 2019, 7; McLaughlin 1990, 80), understanding language as written, spoken, or visual. Novels, speeches, poems, plays, essays, conversations, autobiographies, photographs, paintings, murals, and film are all expressions of the human experience through language. So in our SoTL, we try to understand and interpret students' experiences by collecting and analyzing their texts as "artifacts of student thinking, learning, expression." Karen Manarin explains the term "artifacts" as signaling that these texts are "created by students," that they "might contain traces of learning," and that they are "oblique measures open to many interpretations" (2017, 168). Later, she explains she also prefers "artifacts" because it suggests they're "shaped by a series of choices the student made . . . in a particular time and context" (2018, 102). Many humanists in SoTL use the term "evidence" as we do in constructing arguments, representing specific textual moments (again, broadly defined) to illustrate a concept, advance a position, or lead to a conclusion. Bass and Linkon clarify that SoTL's "evidence of student learning" comes in the form of "specific utterances" from "students' work, together with what they say and do in the classroom, [which] constitutes the 'visible action' of student learning" (2008, 258). The terms "artifacts" and "evidence" aren't competing terms, though: an artifact may be collected and then used as evidence to support and illustrate an interpretation of student work.

SoTL's written artifacts may include formal work such as essays, papers, stories, and poems, as well as informal student texts such as minute papers, in-class writings, journal entries, and other reflective writings, notes, and marginal annotations. Such informal, formative, or unpolished texts can be especially meaningful in capturing students' messier experiences of the learning process, rather than the polished performance of learning. SoTL projects drawing on written artifacts aren't hard to find. Jeff Sommers looks to his students' reading journals throughout the semester to find their "open-ended thinking," such as a willingness to "explore confusion," which he saw "squelch[ed]" in the final exam (2004). In his poster at the 2004 ISSOTL conference, he illustrates this tension with excerpts from one student's written exam and reading journals, leading him to ask if "the hegemony of the final exam worth 25% of the course grade forced this student to an artificial closure in his open-ended thinking to succeed on the test" (2004). Holly Hassel, Aeron Haynie, and I wanted to surface students' initial patterns of interpretation when asked to make sense of moments of ambiguity, so we analyzed their annotations-underlining, crossing out words and phrases, and marginal notes-on a poem (Chick, Hassel, and Haynie 2009).

Some humanistic SoTL projects will look to spoken artifacts, such as comments and conversational moves in class discussion, study groups, or office hours, presentations, or think-alouds. Dianne Fallon found her students' presentations to be powerful evidence of something more nuanced happening in her diversity course. After some surprise about the seemingly "reductionist" and "simplified" statements in her students' final writings, Fallon revisited their short presentations and class discussions throughout the course, which had "demonstrated an understanding of the complexity of diversity issues" (2006, 412). Rather than settling on what would have been her own reductionist and simplified assessment that her students had failed to learn, she reminded herself that "when we examine student learning, ... nothing is as obvious as it might seem" (413). Taking seriously the demonstrations of more sophisticated thought in students' spoken work over the course of the semester, she wonders if her students are "striving for complexity, but then revert[ing] to another position that feels more comfortably aligned with, or less challenging to, the value system and past experiences

that they've brought with them into the classroom" (413). This serious turn to students' spoken artifacts is a key moment in her SoTL project and one that led to her development of a "Taxonomy of Diversity Learning Outcomes, Behaviors, and Attitudes" (415). Stephen Bloch-Schulman uses think-alouds "to investigate whether students were reading philosophic work through a schema driven by plot, . . . utilizing the reading skills they would correctly use reading fiction when reading philosophy, and missing the purpose and structure of philosophical writing" (2016, 9). In his article, he focuses on the short videos and transcripts from one philosophy major and one philosophy colleague to illustrate the likelihood that traditional pedagogies in philosophy are teaching more about content than about how to read and think like a philosopher.

Visual "artifacts of student thinking, learning, expression" might include students' photographs, photovoice, posters, mind maps, or concept maps. Camille Kandiko, David Hay, and Saranne Weller collected students' concepts maps from early, the middle, and the end of the semester in a classics course to "externalize [students'] personal understanding" of "the impact of Greek literature and culture on the Roman world" (2012, 71, 74). Although the first maps revealed each student's "understanding of 'expert' knowledge" and "facts and concepts" (81), the second and third evolved "beyond a surface understanding of others' ideas" to make visible the distinctive shapes of the student's "personal learning self" with "an individual, personal perspective and voice" (82). The article includes three concept maps from one student, vividly illustrating this progression of how the student organized and then re-organized their knowledge in the course. Manarin writes about assigning research posters to her students in a literature course: since the paper "often seems to be an exercise in formatting rather than knowledge creation," her students first create and share posters about the research process of "scholarly conversation, with each other and with our primary and secondary sources" (2016, 2-3). Her choice for her literature students to create visual artifacts is intentional, as the "posters defamiliarized literary research by making it less about the research paper and more about

the process of knowledge creation," allowing her "to see aspects of the research usually hidden in the conventions of the research paper" (12).

The examples in this section—reading journals, annotations, presentations, discussions, think-alouds, concept maps, research posters—reveal another characteristic of humanistic SoTL that didn't make it into the interest group's list: attention to process, not just product. In "Capturing the Visible Evidence of Invisible Learning," Randy Bass and Bret Eynon write about how much of learning is invisible to us, particularly during its "intermediate processes," so they encourage SoTL that collects and looks closely at "artifacts that captured the intermediate and developmental moments along the way" to "traditional summative products" (2009, 5, 9). Here, they say, we may find more about "the aspects of learning that go beyond the cognitive to include the affective, the personal, and issues of identity" (5).

## Our Meaning-Making

- "Uses methods such as narrative inquiry, close reading, thought experiments, meditations"
- "Engages with nuance" (again)
- *"Constructs* arguments, rather than starting with a hypothesis," possibly "more abductive than inductive"

Looking again to the larger project of trying to understand and interpret students' experiences, humanistic ways of analyzing or making meaning from those experiences are embedded in the verbs "understand" and "interpret." Salvatori characterizes this kind of inquiry and analysis as "unprecedented attentiveness to students' work, their cultural capital, and their learning" (2002, 298). At the same time, within the attempt to understand and interpret, **our methods and methodologies reflect the fact that we "value ambiguity, complexity, and the irreducibility of learning and knowledge in the Humanities"** (Bass and Linkon 2008, 259). The interest group focused on specific methods (some of which were aspirational) that share these goals.

Narrative inquiry is a "storytelling methodology through which we study narratives and stories of experience" (Kim 2016, 3). As a specific, named approach to research, it originated as an effort to "pull psychology out of its state of disillusionment by replacing the mechanistic and reductionist postulates of positivism with a humanistic paradigm highlighting story making, storytelling, and story comprehension" (Bochner and Herrmann 2020, 287–88) and involves "researcher-storytellers' ... put[ting] stories (our data) together in a narrative form that best represents our research data" (Kim 2016, 3). These descriptions clearly identify narrative inquiry as a social science methodology that draws from humanistic approaches to meaning-making, so its inclusion on the interest group's list aligns with other discussions about how humanists have struggled to position their work as legitimate research within the multidisciplinary spaces in SoTL (see, for example, the citations in the second paragraph of this chapter). In this chapter, however, I'll just say that SoTL invites humanistic SoTL practitioners to explore and interpret the stories of their students and themselves to represent the complexities of their experiences, and to represent their work in a range of storytelling genres.

Close reading is a way of answering the questions, "What does it mean?" and "How is it expressed?" and "Why is it important?" Bass and Linkon describe close reading as a recursive or hermeneutic process that starts with a text-focused inquiry driven by scholars' "assumptions about what matters" and ends with "offer[ing] new insights on a more broadly defined subject" (2008, 247). In "Close Reading: Paying Attention to Student Artifacts," Manarin (2018) offers an extended description of this method that's worth quoting at length:

When I'm doing a close reading, I'm . . . looking for patterns. . . . I usually begin by looking at a content area (what was said or demonstrated in the artifact), and then I move to how it was said or demonstrated.

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Sometimes, I look at what wasn't said because paying attention to the silences can be important. . . . Often, I read something in multiple ways, "with" and "against" the grain. . . . Reading with the grain means reading as the writer hoped you would, trying to understand what the writer wanted you to see in their own terms; reading against the grain is a type of resistant reading, considering the unexamined assumptions, the contradictions, or the silences of an artifact. (2018, 103)

Here is yet another way we "engage with nuance," analyzing student texts to open up their language beyond its denotative or surface meaning in order to "unpack" its connotative, figurative, and contextual meanings (Chick 2013)—parallel to Manarin's reaching beyond "reading with the grain" to also "read against" it, or what Bass and Linkon describe as "recognizing how a text's various sub-texts enrich, subvert, and complicate the text's overall meaning" (Bass and Linkon 2008, 259). This analysis is active, generative, and constructive, so our question "What does it mean?" may be more precisely asked as "What do we make of it?" Manarin situates this analysis within constructivism, the theory "that people construct knowledge of external reality through experience and reflection" (2018, 107).

It's important to point out that this kind of meaning-making isn't limited to literary scholars and writers, or even to humanists. Thomas McLaughlin explains that it's "built into the language" because there is "deep logic that underlies any use of words," including a "figurative history of the word [that's] a part of its meaning" (1990, 84). He illustrates with the word "tiger." English speakers understand its meaning as a "large, predatory cat," and also that describing a football player as a "tiger on defense" doesn't point to "claws and sharp teeth on the field" but instead is commentary on "the player's aggressiveness and speed" (81). McLaughlin explains:

All in a moment we work it out that the tiger and the player are both elements in a mental category, "aggressive things," so that it is appropriate to transfer a characteristic of the tiger to the player by means of the figurative phrase. Now if this analysis seems too obvious, that's because I'm trying to articulate the logical steps that we accomplish in an intuitive flash. (81).

Qualitative social scientists may see some similarity to grounded theory, discourse analysis, and other qualitative approaches, and sometimes it's easiest for humanistic SoTL scholars to cite these methodologies as a shortcut for rigor that will be familiar to non-humanistic reviewers.<sup>8</sup> Yet we do our colleagues and the humanities as a whole a disservice when we miss the opportunity to share the value of our homegrown and historical approaches. I'll address how we describe our approaches in more detail in the next section.

The interest group's list includes thought experiments as a method for humanistic SoTL, added by philosopher Bloch-Schulman, who has used them in his own SoTL. He describes a thought experiment as an "arm-chair" or non-empirical method of research that doesn't measure, collect evidence, or predict. He illustrates SoTL thought experiments by imagining two ways of teaching. The first results in a higher rate of learning during the semester, but a dwindling of that learning within a year or two. The second shows less learning during the semester but substantially better performance than the first after a year or two. "Which is preferable?" he asks. This thought experiment leads to some important insights: "For example, in programs that are cumulative, the learning in one class might only need to prepare students for the next without a concern that the learning itself lasts long," but enduring learning may be more important in other programs, information with implications for how to design courses within each program. The experiment of imagining the two ways of teaching and drawing

<sup>8</sup> I've certainly done so, and continue to wrestle with this shortcut to appease reviewers.

conclusions is valuable.<sup>9</sup> "Meditations" are similar, a kind of expressive writing that invites readers to join the writer in exploring their thoughts and reflections. Helen Sword calls her piece "The First Person" a "playful meditation on academic pronouns" (2019, 182).

The interest group also noted that humanistic SoTL scholars "construct arguments, rather than starting with a hypothesis." Our work is often inductive, drawing from specific artifacts, evidence, or observations to arrive at more general conclusions, interpretations, or insights. Ingie Hovland carefully traces the sequence of such an approach with her religion students' development of pre-reading maps, ending with the observation that the "inductive, open-ended process described here will usually produce conceptual answers-that is, thick descriptions, interpretations, analyses, and arguments" and will "[dig] deeper into considering 'what is,' foregrounding student experiences and multi-faceted moments of learning" (2021, 42). She and other humanistic scholars, she says, find this approach meaningful and "significant" because it "move[s] the conceptual conversation forward: Do the answers generate new and productive questions for other scholars? Do they give others conceptual lenses through which to see patterns they had not noticed before? Can they be discussed and contested?" She contrasts this inductive approach with a deductive response to "the reasonable need to know what worked in the author's classroom, what that looked like from the author's perspective as a teacher, and whether it can be reliably replicated in their own class when they walk through the classroom door on Monday morning" (42). Bloch-Schulman extended the interest group's discussion of inductive projects by proposing that "they're more abductive than inductive" in their reasoning, acknowledging that our evidence, artifacts, and observations are necessarily incomplete, so we don't assert that our conclusions are "true" but

<sup>9</sup> Thank you to Stephen Bloch-Schulman for fleshing out his idea from the Bergen meeting. For more information, see his article "A Critique of Methods in the Scholarship of Teaching and Learning in Philosophy" (2016).

instead that they're the most likely.<sup>10</sup> This discussion of the logic beneath humanistic SoTL projects—like Manarin's preference for the term "artifacts"—emphasizes that **the goal isn't certainty**, **truth**, **or universals (i.e., generalizability) but instead interpretations**, **insights**, **and observations based on careful**, **close analysis of the artifacts**, **evidence**, **and other information available**.

## Sharing Our Work

- "Presented not only via essays and articles, but also as poetry, drama, videos, drawings, graphic short stories/novellas, role play, et al."
- "Engages with nuance" (again)
- "Rich with quotes and others' voices"
- "Intentional about citation style that foregrounds valued bibliographic information (e.g., full name of author, not as concerned about date of publication)"
- "Authentic (even poetic?) ways of describing methods"
- "Storytelling"
- "Meaningful reflection"

Given the humanistic interest in how humans express themselves and the meaningfulness of these choices, it's fitting that the interest group's list devotes more attention to how we share our SoTL work than any other topic.

#### Genre

The interest group was composing this list at an annual SoTL conference, so it's a bit surprising that it doesn't include any explicit references to conference presentations or posters. My sense is that poetry, drama, videos, and role play were offered in part as alternatives to the ubiquitous PowerPoint presentations, and video, drawings, and graphic short stories/novellas as what our SoTL posters might

<sup>10</sup> It may be helpful to know that this reasoning is also used by doctors in making medical diagnoses based on available symptoms and by juries in reaching verdicts based on the evidence presented.

look like.<sup>11</sup> Most humanistic SoTL scholars share their work in essays and articles published in peer-reviewed journals, book chapters, or entire books. (Books are highly valued products in humanistic disciplines, typically the highest level of publication, even ahead of peer-reviewed journal articles.) The inclusion of "essay" is important here, connoting a free-form genre made up of many paragraphs, although it may be signposted with subheadings that identify specific ideas within its sections, like this chapter. This genre contrasts with the IMRAD article format (i.e., discrete sections for Introduction, Methods, Results, and Discussion), the standard template of research reports in the sciences and, according to some sources, the appropriate and even "the most prestigious genre" for sharing empirical research (Healey, Matthews, and Cook-Sather 2020, 117, 119).<sup>12</sup> Manarin writes about her difficulty with this format that places "too much of a gap between the specific quotations from the artifacts and my interpretation of what those quotations mean," whereas she wants "to show and tell my reader my interpretations" of the learning glimpsed through student artifacts. I want to give my reader the chance to see what I saw, but I also want to explain the inferences I drew from those specific words presented in that specific way" (2018, 104).

The rest of the interest group's list is largely aspirational and invitational, as there are—to my knowledge—few examples of "poetry, drama, videos, drawings, graphic short stories/novellas, role play" documenting the results of a SoTL project. Olivia Archibald and Maureen P. Hall's 2008 article on their collaborative project on reflective writing in their courses is written as, according to their

<sup>11</sup> For an early challenge to represent our work through meaningful visual shapes and graphics, including graphic short stories, see "Posters: Visual Representations of SoTL Projects," part of my online *SoTL Guide* (https://nancychick. wordpress.com/posters/).

<sup>12</sup> I suspect I'm not the only humanist who's capitulated to the IMRAD template, especially when working in multidisciplinary collaborations. (See, for example, Chick, Karis, and Kernahan 2009.) On one hand, I found it far easier to write since I knew exactly what to write and where; on the other, I struggled with separating my interpretations into distinct "Results" and "Discussion" sections (like Manarin), and I'm sure any slips in that article were entirely my doing.

subtitle, "A Play (of Practice and Theory) in Three Acts," and the style is a combination of narration, reflection, and analysis. They explain their choices: "We have deliberately subverted the typical research reporting format in an attempt to jump beyond the often limiting boundaries and templates of conventional writing forms, to create the acts of a journey—our journey—through the project" (2008, 15). Deborah Currier, at the 2013 conference of the International Society for the Scholarship of Teaching and Learning, led a performance of "Landscapes of Learning," a collaboratively "devised theatre piece investigating a scholarship of teaching and learning question" (2013, 221). There are a few poems about SoTL (see, for instance, Gilpin 2013 and Sheffield 2020), but none that share SoTL projects. I dream of two kinds of SoTL publications chronicling a SoTL project in a short story or novel,<sup>13</sup> or exploring the results in a poem that looks a bit like T. S. Eliot's *The Wasteland* in its length, richness, and footnotes—but perhaps not its tone.

#### **Characteristics of Our Products**

From what I remember, and the way I read the interest group's list, much of what we discussed was focused on the varied ways through which we express our SoTL projects and what these expressions looks like. Just as we "engage with nuance" in the questions we ask, the students' learning experiences we explore, and how we make sense of those experiences, we do so again when we share the results of work. This complexity is visible when our presentations and publications are "rich with quotes and others' voices." Since we believe that what people say and how they say it are meaningful, simply summarizing overarching themes would erase the richness we sought in our projects. We also want readers to follow the breadcrumbs of our analyses, so we include the voices of students, as well as the words of fellow scholars. The resulting intertextuality is a hallmark of humanistic publications

<sup>13</sup> Faculty developers have Thomas B. Jones's *The Missing Professor: An Academic Mystery* (2006), so I eagerly await a SoTL counterpart.

and presentations, which also means that we often have relatively long bibliographies. The mention of bibliographies led to a moment of aspiration (and perhaps rebellion) for interest group members who've had to use unfamiliar citation styles that remove all but the first letter of fellow scholars' first names and promote the date of publication, as if that mattered to us.<sup>14</sup> In response, they challenged future SoTL scholars to be "intentional about citation style that foregrounds valued bibliographic information (e.g., full name of author, not as concerned about date of publication)."

The interest group also challenged humanistic SoTL scholars to write "authentic (even poetic?) ways of describing methods," referring not just to the methods we choose and describe but also about how we describe them. The language implores us to avoid jargon density and mechanistic step-by-step descriptions and show pride in representing what and how we do SoTL, embracing the claim in Sword's Stylish Academic Writing, "Elegant ideas deserve elegant expression" (2012, xvii). Some publications offer models for such authentic descriptions of humanistic SoTL methods (see the book's online resources for examples), but I don't yet know of any that I'd describe as poetic, although Manarin's chapter on close reading (2018) is certainly elegant. This comment on how we represent our work connects to the list's mention of "storytelling" and "meaningful reflection." Storytelling suggests using a personal voice to share an experience, so its inclusion in the list invites us (at the very least) to represent the arc of students' and our own experiences-vividly and in narrative form, not just basic exposition. After seeing the increase in first-person pronouns in SoTL from 2007 to 2017, Sword celebrates with others "who prefer the live voices of real human

<sup>14</sup> In her 2016 article in *Teaching & Learning Inquiry*, Karen Manarin ends her second paragraph with a brief endnote—one of just two in the whole article—for her "disciplinary colleagues [who] will notice immediately" her use of APA citations. She clarifies that they were required by the journal, and ends simply with the statement, "Different formats encourage different ways of thinking because they emphasize different elements" (2016, 13). See Russell, Littler, and Chick (2020) for more about how citation styles meaningfully encode disciplinary values and priorities.

beings to the dull dronings of agentless academic prose" (2019, 188). The clarification that our reflection is "meaningful" may point to extended moments of analysis of our artifacts, or of considering how we affected or were affected by our projects, or of exploring broader implications of our work. Both of these characteristics—storytelling and meaningful reflection—also suggest that we are explicitly part of our research, and we share these experiences when we share our projects. We are not, as Sword writes, "the missing person" cloaked by passive voice, generic pronouns, and the "anonymity of purely impersonal prose" (2019, 187).

I'll wrap up this chapter by returning to the "Uncomprehensive, Non-Hierarchical, Not-a-Checklist" list generated by ISSOTL's Arts and Humanities Interest Group. The items on that list and what we didn't capture that Saturday morning invite further unpacking. Each of the bulleted characteristics deserves a deeper dive than this already-too-long chapter allowed, so I encourage others to help us explore and articulate what our work can look like. For example, Stephen Bloch-Schulman, who so generously provided feedback on this chapter, wrote a 729-word marginal comment illustrating the nuances of deductive, inductive, adductive, abductive, and subsumptive reasoning in SoTL, and a 333-word marginal comment on thought experiments in SoTL-both of which could be developed into helpful essays that are significantly better than what I did with those ideas here. Or, as I've written this chapter, I've thought repeatedly about the humanistic tendency to value process as much as (and at times more than) product. Surely we talked about that in Bergen, but it didn't get recorded in our list. Finally, one of the anonymous peer reviewers of this chapter encouraged me to write about curiosity and joy, which would be a lovely extension of the list and would resonate with mid-career faculty seeking more of both in their work.

However, that same reviewer made another recommendation that I find more compelling—to connect to Randy Bass's newer essay, "What's the Problem Now?" His essay invokes many of the characteristics from the interest group's list, especially as he reframes learning as a "complex, wicked problem" (2020, 6). This move resonates with Gary Poole's 2013 often-quoted nudging for SoTL to "shift from an imperative of proof to an imperative of understanding" and to "move from an imperative of generalizable simplicity to one of representing complexity well" (2013, 141). But Bass applies greater pressure than Poole's nudge by exploring why: The complexity of human learning, he argues, now demands that we strive toward "better understanding [of] human learning," so that we can "[apply] our understanding" to design a high-quality, equitable education that will lead to more equitable society (emphasis in original; 2020, 10). This understanding of learning is, he says, "an urgent, if not moral, imperative," concluding that it's "morally objectionable to misunderstand a wicked problem for a tame one" (9). Both Bass and Poole plead with us to engage with nuance, not for the epistemological or methodological reasons I've explored in this chapter, but because the world now demands it of us.

Humanities academics who feel that they've gone "far enough" with their disciplinary work and now seek something that makes them look forward to the remaining decades in the profession may be looking for curiosity, joy, novelty, community, and much more. But ultimately, what they often yearn for most is a sense of meaning or purpose in their work (Hall 2002; O'Meara, Terosky, and Neumann 2008; Monaghan 2017; Nagoski and Nagoski 2019). I can imagine few endeavors more meaningful than authentically applying their expertise in a diverse and welcoming community that's working to better understand the complex, wicked problem of learning as equity-building work.

### **Reflection Questions**

- Thinking about your approaches to SoTL, what do you find most difficult to explain to an unfamiliar audience, and why?
- How would you explain any of the characteristics or choices described in this chapter differently or in your own words?

- What humanistic characteristics or choices aren't included in the interest group's list or in this chapter, and how would you explain them to an unfamiliar audience?
- Have you encountered colleagues using approaches with which you're unfamiliar and which remain unexplained? How did this make you feel? In what ways could they have been more clear to you, so that you fully understood their work?
- If you're from a discipline outside of the humanities, which characteristics or choices in your field do you find most difficult for unfamiliar audiences to understand? Draft a paragraph of explanation for each, and return to this draft the next time you write or speak about these concepts to a non-specialist audience.

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### CHAPTER 9

# FROM INDUSTRY TO SOTL

### Making the Case for Taking the Leap

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The scholarship of teaching and learning (SoTL) has been affectionately termed the "big tent," suggesting that SoTL has a place for everyone, and offers the opportunity for scholars of all stripes to join the conversation (Huber and Hutchings 2005). But despite this proverbial welcome mat, many challenges persist, discouraging many from a foray into the SoTL tent. These challenges include both institutional and structural barriers, such as tenure and promotion policies, but also contextual and personal factors, such as acclimatizing to unfamiliar disciplinary definitions, language, methodologies, and ways of thinking, as well as the so-called "imposter syndrome" (Clance and Imes 1978; Mathany, Slow, and Aspenlieder 2017; Miller-Young, Yeo, and Manarin 2018; Webb 2019). Moreover, as described in chapter 1 (Miller-Young and Chick), the ongoing professionalization of SoTL may impose real or perceived barriers to who is eligible to be regarded as a SoTL expert, and under what circumstances. Much of the literature describing these challenges comes from the university sector, in which faculty typically have doctorates and are experienced scholars.

There is comparatively less known about the expansion and sustainability of SoTL in other areas of higher education, such as in community colleges and polytechnic institutes. In this chapter, we focus on vocational faculty in one such sector: the large polytechnic institutes in Ontario, Canada. This sector, characterized by its industry-focused applied learning and innovative, experiential approaches to education, differs from its university counterpart in two important ways: First, because polytechnics are teaching-focused institutions, there is typically no explicit mandate for faculty to engage in research and scholarship activity. Second, faculty members come from a broad variety of disciplinary backgrounds, ranging from skilled trades, such as chefs and electricians, to clinical professionals, such as nurses and paramedics, to those with doctorates in liberal arts and sciences, engineering, and information technology. Thus, within this context, there are a large proportion of vocational faculty who not only have never engaged in SoTL, but who have never professionally engaged with research or scholarship of any kind (Hoekstra, Dushenko, and Frandsen 2010). Faculty in this context may identify primarily as industry experts, then as educators, and much less commonly, as academics. As such, the prospect of SoTL engagement represents something bigger than just an exploration into a new area of inquiry. Rather, it entails an entirely new way of thinking, learning, seeing, and doing for a group of faculty who may not even identify as educators, let alone as scholars. For these reasons, a "foray" into the big tent might feel much more like a walk on the tightrope.

Why, then, would a vocational faculty member in this context embark on such a journey? In this reflective essay, we describe the many benefits of SoTL engagement to this group of polytechnic faculty members, with respect to professional growth and identity development, the propulsion toward innovation in practice, and the opportunity to form social connections. In our reflection, we contemplate some of the particular challenges encountered by these faculty, while arguing that the many benefits realized—as evidenced by some illustrative quotations and observations—far outweigh the costs. We conclude with some key recommendations that we have found to be helpful to the vocational faculty that we support, with the hope that they might prove useful to other "non-traditional" scholars considering taking the leap into SoTL.

#### The Polytechnic Sector

In Ontario, polytechnic institutes have evolved from large, urban vocational colleges, offering a wider range of comprehensive programming, from diplomas and certificates to baccalaureate degrees and postgraduate programs. Polytechnics are characterized by their extensive interactions with industry, not only through partnerships and applied learning opportunities for students, but also with respect to curriculum development, research, and teaching. These close connections have led to exceptional specializations in programming and considerable expertise (Skolnik 2004). It has also led to a professoriate composed of faculty members as distinct as the programs in which they teach. Hired for their extensive industry expertise, and depending upon the industry, faculty members may or may not have advanced academic credentials and may never have engaged in research or scholarship professionally. For example, faculty teaching in apprenticeship programs are more likely to be qualified as journey persons or hold master certifications in their trade, whereas those teaching in degree programs will have doctorates or other relevant terminal credentials. This diversity creates an interesting mosaic, but also a potential dichotomy in which some faculty members self-identify as "academics" and others do not, simply by virtue of the type of credentials they hold and/or because of their extensive time in industry. Indeed, faculty members who transition from industry to academia don't necessarily see themselves as "real" academics and are required to make a significant shift from their occupational identity to an academic one (Santoro and Snead 2013).

Further, because of their deep connections with industry, polytechnics are, by design, at the leading edge of industrial and pedagogical innovation (De Courcy and Marsh 2018). This means that faculty members are expected to deliver innovative, experiential curriculum. Yet, as in much of higher education, many faculty members in this sector do not have formal teaching credentials, and in some cases, have little or no teaching experience (Skolnik 2016). To help lessen the gap in pedagogical knowledge and skill, many polytechnics induct new faculty members into the profession by providing preparatory teacher training programs (e.g., Hoekstra, Dushenko, and Frandsen 2010). Still, for many novice faculty members, this experience is only the first stage in the construction of a professional identity as an academic and an educator.

### The Role of Identity

Thus, this sector presents a unique set of circumstances, in which teaching innovation and excellence is a priority, research is not a required condition of employment, and faculty often identify primarily as industry professionals, and not necessarily as teachers or scholars. This situation may be even more complicated for vocational faculty, according to Fejes and Köpsén (2014), as they often participate in and move between several professional communities, leading them to assume several occupational identities. This fragmentation can add to the complexity of identity formation, as faculty exist in a "liminal space" while they construct an academic identity among other conflicting identities (Simmons et al. 2013, 9). For vocational faculty members, participation in SoTL can be particularly disconcerting when there is little familiarity with research methodology, academic writing, and engagement with scholarly literature (Tierney et al. 2020). These feelings may negatively impact confidence levels, leaving faculty particularly susceptible to impostor syndrome-persistent feelings of self-doubt and fear of being exposed as a fraud or impostor (Clance and Imes 1978).

Among faculty, imposter syndrome arises when there is "a mismatch between the representation of an academic and one's identity" (Parkman 2016, 57). In essence, those with impostor feelings lack a sense of belonging within their professional community and question their legitimacy (Bravata et al. 2020). Studies suggest that those faculty experiencing imposter phenomenon are more likely to experience negative perceptions of teaching effectiveness, negative teaching evaluations, and poor engagement with students, and they often resist participation in scholarship and research (Hutchins 2015; Parkman 2016).

In line with the noticeable gap in the SoTL literature pertaining to vocational faculty, there is a similar lack of empirical evidence around how this group of faculty experience imposter syndrome. In one notable exception, a recent study that explored a comparable group of educators (faculty transitioning from clinical practitioners to educators) indicated that faculty had difficulties with identity ambiguity and experienced symptoms of imposter syndrome such as anxiety, lack of confidence, depression, and frustration (Freeman et al. 2022). These results are consistent with our own observations and experiences supporting faculty as they transition from industry professional to educator and, subsequently, to scholar. Taken together, within the polytechnic sector, and particularly among vocational faculty, the development of a scholarly identity, practice, and research agenda-and indeed, venturing into the "big SoTL tent"-might require an even bigger leap of faith than for their contemporaries in the university system (Hoekstra, Dushenko, and Frandsen 2010).

#### The Vocational Faculty Member's Entry to SoTL

Given these impediments to SoTL engagement and their intersection with varying professional identities, how can vocational faculty who are new (or newer) to research and scholarship make the leap? At a large polytechnic institution in Toronto, Ontario, Canada, we sought to address this question by cultivating a non-competitive funding program to support SoTL engagement, regardless of previous scholarly knowledge and experience. Faculty were asked to articulate a research question or idea, in as little as a few sentences. Faculty were then provided with training and support to develop their ideas into formalized research questions and proposals, gather empirical evidence, and disseminate their findings. Throughout the process, the local SoTL community—in which novice and seasoned scholars alike were embedded—was central as a cohesive force for sustained SoTL engagement (Frake-Mistak et al. 2020). From training sessions to data collection to subsequent dissemination of findings, the program embedded faculty within an informal community of practice, given the demonstrated impact that this can have on both personal and organizational transformation (Lave and Wenger 1991; Wenger 1998). Although this social context was probably beneficial for all faculty in the program, we believed it would be particularly of value to the vocational faculty—as novice scholars—in promoting a sense of belonging and legitimacy, as their scholarly identities emerged.

From the outset, the innovation and passion for learning that these faculty members possessed was evident. In every case, it was clear that faculty had been reflecting deeply (formally or otherwise) about the learning experience of their students and wanted to try something new. For instance, one professor wished to use Lego robots to teach elemental coding concepts to non-computer science students who were required to take a coding course; another professor in the radio and media production program had eschewed textbooks in his course, with a goal of achieving a flipped classroom approach with a suite of digital open educational resources (OERs), such as videos, podcasts, and infographs. A third project conducted by applied technology faculty focused on the impact of lighting quality on student learning.

In some cases, the vocational faculty members' projects spanned entire programs: A group of massage therapy professors decided to redesign their entire curriculum to align with inquiry-based learning, and were wondering what the impact would be; an interior design professor wanted to understand how well students' programs had prepared them for their subsequent careers, and interviewed a group of recent alumni from the program about what they wished they'd learned more about during their courses of study.

In many cases, there was clear evidence of innovative thinking and a genuine desire to improve the student learning experience, but operationalizing the idea into a formalized research question with associated methodology required some additional support. Among the faculty involved with this initiative, approximately one-third had never previously conducted research independently, and almost two-thirds were new to SoTL research in particular.

### The Benefits of SoTL

Based on anecdotal reflections as well as qualitative responses from feedback forms from over fifty projects completed across a threeyear period, it was clear that the experience of SoTL engagement was overwhelmingly positive for the faculty supported within the program. Beyond the typical benefits of SoTL engagement noted elsewhere in the literature, such as improvements in teaching practice, student outcomes, and course design (Cox, Huber, and Hutchings 2005; McKinney 2007; Weimer 2006), faculty commonly remarked about impacts that were not focused on their research findings or outcomes related to student learning. Their observations tended to cluster around three broad themes: professional growth and identity development, igniting curiosity and innovation in their practice, and the value of the social connections they formed throughout the process.

#### Professional Growth and Identity Development

Although the goal of the SoTL projects was ostensibly to explore student learning, it also served as a meaningful professional development opportunity and "gateway" into research and scholarship for a number of faculty. In particular, when asked about the best part of their experience, several vocational faculty particularly those who had never before conducted research professionally—noted an appreciation of gaining new exposure and experience with research, scholarship, or some aspect therein. One vocational faculty member replied, "Everything—there isn't just one best part. The personal learning (about the research question, but also just research in general, and other colleagues doing research) was so valuable." Several others noted specific skills that they had developed, such as the ability to use a new statistical analysis software or conduct a qualitative analysis. Other participants cited benefits to their identities as educators and scholars, such as focusing their interest on teaching, feeling more grounded as a teacher, or simply that the experience had revitalized their teaching and scholarship.

#### Igniting Curiosity and Innovation

In addition, some faculty expressed a sense of excitement in their work, commenting on the joy of watching their idea come to life and seeing the impact in real time, or inspiring new ways of approaching their work. Among these faculty, it was clear that the experience not only served to inform them about their teaching practices, but it also stirred a sense of renewal and an appetite for innovation, as illustrated in the following quotation:

I'd rank it as one of the three most important experiences I've had in teaching. It brought the class together in a transformative way. I can honestly say I may never experience a class like that again. But it confirmed to me why it's important to try and test out new approaches to teaching. It has real value for student engagement. That's why we do what we do: to get students to invest and believe in what we're teaching them.

#### **Social Connections**

A third common theme centred on the impact of working with colleagues and getting to know new individuals at the college. In particular, when faculty were asked about the best thing about their SoTL experience, one noted, "I'm grateful for the support I received and for the people I met during this process. It was very rewarding to be part of [a] community that was so supportive and enthusiastic about my project." Another shared that the best part was "finding a community of committed educators and scholars outside of my department."

These faculty narratives speak to the power of SoTL as an engine for professional development and transformative reflection, particularly among vocational faculty members who are new to SoTL. Although they valued the findings of their SoTL work and reported improvements in their teaching practices, what stood out most to them was the social connections they formed, the professional growth they experienced, and the appetite for innovation that was ignited.

## Challenges of SoTL

Despite these positive sentiments, faculty nonetheless encountered challenges in their SoTL journeys. For example, many had difficulty in locating relevant scholarly literature and navigating the ethics review process. These challenges may be especially pronounced in teaching-focused institutions, like polytechnics, in which library collections and ethics review processes may be less mature in their ability to support robust SoTL cultures.

In addition, as novice researchers, many of the faculty we supported often seemed caught off-guard by unanticipated issues, including the amount of time various processes required, the logistics associated with scheduling research activities, the challenges of recruiting participants for their projects, and unanticipated costs associated with the work. These speak to the inherent challenges that are often present in research and scholarship, and are probably not surprising to any seasoned scholar. However, any unanticipated barriers faced by faculty experiencing imposter syndrome and transitioning among professional identities could serve as legitimate risks to persistence and sustained engagement with the field, especially for vocational faculty, for the reasons described above.

## Making the Case for Taking the Leap

Despite these challenges, we nevertheless contend—and the reflections shared here reinforce—that a foray into the SoTL tent is well worth the effort. Beyond the impact on teaching practices and understanding of student learning, engagement with SoTL has the ability to stir innovation and experimentation, reinvigorate teaching and a passion for lifelong learning, and foster social connections in ways that few other professional endeavours afford. Although this assertion is based on our experience with this particular faculty group in this particular context, we recognize that there are several other

groups of "non-traditional" scholars (e.g., adjunct faculty, graduate students—as described in chapter 5 of this book, Suart, Ogrodnik, and Suttie) for whom these benefits would also be highly relevant. In that spirit, we offer key recommendations to those considering making the leap.

#### Professional Growth and Identity Development

The faculty involved with SoTL at our institution identified a number of new skills gained throughout their experience, and also reported growth in their confidence as teachers and as researchers. This aligns with Shulman's (2001) contention that the pursuit of "professionalism" in the professoriate is the most important reason for engaging in the scholarship of teaching and learning. More specifically, Shulman (2001) called for academics with several professional identities (e.g., occupational, discipline, and educator) to "discover, to connect, to apply and to teach." By engaging in SoTL, academics, as members of dual professions, can improve their own teaching practice and positively influence student learning. And while SoTL can and does lead to improvement in individual teaching practices, "the professional imperative," according to Shulman (2001), is both "individual and communal" as academics must fulfill their professional responsibilities for "passing on what they learn" to their peers (49). It is during this sharing process that vocational faculty members reconstruct their professional identity as a legitimate member of the academic community (this theme is echoed in chapter 4 by Green). However, knowing that vocational faculty are also particularly prone to imposter syndrome, and based on the needs of the faculty we supported, we offer the following things to keep in mind:

**Recommendation #1: Assume what you are exploring has already been explored.** The important thing to remember is that context matters, and what might be true in one classroom in a different institution might look completely different elsewhere. Use the existing literature to bolster your research design. **Recommendation #2: Be ready to revise and repeat.** Research and scholarship are meant to be iterative and self-correcting. Peer review and feedback will eventually make for a better process and/or product, even if it is challenging to hear.

Recommendation #3: Remember that expertise has to begin somewhere; no one is born an expert. Even seasoned scholars learn something new each time they engage in the research and scholarship cycle.

#### Igniting Curiosity and Innovation

As polytechnics are designed to be at the forefront of applied and technical learning, innovativeness must be a core competency for faculty. A constant theme in the literature, and visible through the preceding narratives, is that SoTL is an agent for continual learning, experimentation, change, and innovation. As vocational faculty members mature in their SoTL practice, so too does their competence and confidence in challenging prevailing practices. However, as alluded to earlier, innovation is typically messy, and incurs some element of risk. Accordingly, we advise those new to this process to consider the following:

**Recommendation #4: Start small.** For your first SoTL project, it can be tempting to design a large, all-encompassing investigation. Instead, think of your first project as phase 1 of your research program; you can build from there.

**Recommendation #5: Assume something unanticipated will arise.** Although published research reads like a seamless process, it is often messier in practice. Assume that unanticipated challenges may arise—they are a typical part of the research process.

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Recommendation #6: Assume everything will take longer than you think. Like any large undertaking, it is common for things to proceed differently than planned. Anticipate this from the beginning to manage disruptions to timelines and your expectations.

**Recommendation #7: Be transparent and honest with your students.** Innovation and experimentation can be risky. If conducting research within your classroom, explain that you are exploring new ideas in your practice. Even if things go awry, students will tend to give you the benefit of the doubt, knowing that you are trying to make their learning experience better.

#### **Social Connections**

As noted, the opportunity to connect with colleagues throughout their SoTL projects was perceived as a key benefit for faculty at our institution, and is also noted elsewhere in this book (chapter 2, Nowell). Indeed, participation in a community of practice, as already stated, has the potential to lead to both personal and organizational transformation (Wenger 2000). As the "basic building blocks of social learning systems" (Wenger 2000, 229), communities of practice are powerful socio-cultural forces that can shape a faculty's understanding of teaching and subsequently influence their teaching practice. For vocational faculty members, belonging to a community of practice can increase their sense of belonging to the profession (Fejes and Köpsén 2014). Likewise, Freeman et al. (2022) offer insights on how interactions with peers assist in minimizing the negative impacts of imposter syndrome and contribute directly to faculty members' adoption of an educator's professional identity. The sharing and reflection that occurred within the community of practice created the conditions for risk-taking and innovation that were openly focused on the shared goal of enhancing student learning.

Recommendation #8: Wherever possible, read and look at examples of SoTL, either in the literature or in your local SoTL community. It often helps to get a sense of "what SoTL looks like" as you are developing your ideas. Seeing what others have done may strike inspiration about how to approach your research question.

Recommendation #9: Where possible, talk about your research ideas and hypotheses with colleagues. These conversations may help to generate new ideas or approaches. It will undoubtedly help strengthen your research design and plan.

**Recommendation #10: Celebrate!** Making the leap into SoTL requires new scholars to be brave. Celebrate your accomplishment and those of others within your SoTL community. As the evidence here demonstrates, your efforts will not only improve your practice and your students' learning, but also elevate the knowledge and discourse around teaching and learning at your institution.

### Conclusion

In this chapter, we describe not only the embedded context and challenges faced by vocational faculty members at polytechnic institutes in Ontario, but more importantly, we highlight a number of benefits that result from engagement in SoTL. While some of these benefits are reported elsewhere (e.g., improvements in student learning and in teaching practice), many lie beyond the fringes of the research findings themselves, including impacts on faculty professionalism (identity), innovative pedagogy (teaching practice), and social engagement (belonging). We believe that these benefits are of particular value to this group of faculty, given the polytechnic context and emphasis on teaching innovation, as well as the novice status of vocational faculty as researchers and subsequent developing identities as educators and scholars. We hope that this narrative provides helpful ideas to those exploring the possibility of SoTL and compels you to embrace the adventure and take the leap.

## **Reflection Questions**

- What barriers might a person new to research face as they approach SoTL for the first time?
- Have you ever moved from one professional identity to another? How did it feel? What was most helpful?
- The authors argue that the benefits of SoTL engagement extend beyond the empirical findings of an individual research project. What do you believe are the biggest benefits of SoTL engagement? Do you think this varies based on the SoTL practitioner?
- If you were going to share your own list of key recommendations for this group of faculty (or others new to SoTL), what would you include?

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## CHAPTER 10

# IT WASN'T WHAT I CAME FOR BUT I'M SURE GLAD I STAYED

## From Writing Studies to SoTL

#### Kristin Winet, University of Arizona, US

At the coffee shop across the street from the college where we both work, the new director of our teaching and learning center takes a long sip of coffee and tells me that leaving her tenured job was the best thing that ever happened to her. Even though we barely know each other and have only worked together for a few months, I think she knows I need to hear this. I also think she means it. Her hair pinned in a messy bun, her arm gently draped over the top of the chair, she seems more relaxed than I've been in the three years since I've worked here, a small liberal arts college in central Florida. As we sit and talk about her decision to leave what most early-career English PhDs believe to be the holy grail to devote herself to the field of teaching and learning, I realize that this is the first time that someone has said what I needed to hear for so long: *It's ok—it really is—to leave*.

"Kristin," she says, her eyes narrowing, "have you ever thought about doing what I do?" She shrugs. "I mean, you're probably only a few years out from sitting where I'm sitting."

"But I'm not qualified to do what you do," I tell her, looking down at my napkin.

I knew the woman in front of me had a PhD in English, like me, and that we both loved teaching and writing. But unlike me, she was a powerhouse in the field of teaching and learning—she'd published books, developed programs at multiple campuses, was the editor of a prestigious journal in the field. The field itself—*was teaching and learning even a field?*—seemed as limitless as the backgrounds of the colleagues I knew who were in it. The prior director had come from education; the director of instructional design and technology was an ex-music teacher; and the instructional designers were from literature, history, Spanish, biology. What, however loosely, held their threads together?

"You don't need a qualification to do this," she says. "You need experience." She taps her finger on the table and lists the projects we have been working on together. *Training instructors ... assessing program outcomes ... writing across the curriculum ... curriculum design ... faculty learning communities....* 

Then, she tells me to look up the scholarship of teaching and learning, better known by its acronym, SoTL. I write down the acronym, but at this moment, the letters are just letters—they are not yet a new career path. That day, I am so consumed by the shame of having my tenure-track job eliminated, of losing my faculty townhome, the life my husband and I had been building together, the future I had been imagining for our son, who was just a tiny flicker of life inside me when the news had come the week before, that I could not yet see it. To the life I had been promised, I wasn't ready to say goodbye. But this is not the story of what came before; that story is for another chapter, another day.

This is the more important part of the story: it is the story of what came after. It is, in some ways, a love story—a saying goodbye to one's first discipline in search of a new one.

But first, a memory that might explain things.

First, you should know I didn't grow up wanting to be a professor. The thought never even occurred to me until I was in graduate school at the University of Arizona, where I taught first-year writing as part of my graduate assistantship. I had taught English for a year at a technical university in Colombia before that, but I had never had any training in teaching or goals to become a professor. I wanted, instead, to write. I had never wanted to do anything but write. However, by the time I finished my master's in creative writing and found myself wondering how one actually made a living as a writer, it occurred to me that teaching might complement my aspirations of a writing life. I met with our writing program director, who would become my dissertation chair and a dear friend, and she encouraged me to look into the doctoral program in rhetoric and composition.

The memory is this: In the first semester of the program, I was required to attend a first-year colloquium that would serve as an introduction to the profession. On the first day, the professor leading the colloquium proudly stated that our program had a 100% job placement rate into tenure-track English professor jobs. "In five short years," he said, "you will all have tenure-track jobs, and in ten years, you will all have tenure for the rest of your life." He waved his arms around the conference room, as if to show us the kingdom we would, one day, inhabit. "There is no other job," he said, for emphasis, "better than this." It wasn't until five years later, when I defended my dissertation, that I realized how thoroughly I'd been entrenched in the narrative. That year, I had filled out over a hundred job applications for tenure-track positions, and as my fellow colleagues began accepting positions and I waited for mine, a fear started creeping inside of me: Would one of us break that statistic? And if so, who would it be? Would it be ... me?

In the fall of 2010, when I entered the program, the idea of taking a different kind of job was not taken seriously. This wasn't necessarily the fault of our professors—if I had to guess, it came down to two reasons: 1) none of us were ready to accept that humanities PhDs far outweighed the number of faculty jobs available; and that 2) our professors were themselves tenured professors. With their benefits all around us, why wouldn't we try to follow in their footsteps? I knew of a few people from programs with lower placement rates, such as literature and creative writing, who had graduated and taken jobs in teaching, copywriting, or marketing—fields that needed the skill sets PhDs are known for: the ability to synthesize information and communicate main ideas, to train others, to research and present data, to propose new ideas. However, I also

knew that for these folks, the dream still tightly held its grips: it was no secret they were actively trying to publish and routinely sending out hundreds of cover letters every year in the hopes that they, too, might land back in an English department.

By the time I started my job in central Florida, I'd been institutionalized in the worst possible way, coming to believe, as Leiff et al. (2012) discuss in their work on faculty identity, that the only job I was designed for was a traditional faculty position. As they suggest, our academic identities are constructed by three main factorspersonal, relational, and contextual-and if I could have ticked off all the boxes they present as being the most salient, I would have ticked them all. How we perceive our capabilities, make sense of prior experiences, and come to terms with our competing identities (personal) all play into our sense of belonging, how we believe we stack up to others, and how we perceive others (relational) within wider departmental discourse and, of course, the work environment (contextual) (Leiff et al. 2012, 212). Though these factors are not absent in other industries, this triangle seems particularly critical in academia, where many of us are taught to believe that we are, quite literally, our jobs.

That's the thing about social identity. As Tajfel and Turner propose in their early work on social identity theory (1979), we are socialized to believe that we belong to certain groups—and these groups are what give us both a sense of pride and self-esteem as well as a sense that we fully belong to the social world. When a group no longer includes you, what then? In my last year in Florida, as the writing program fell apart and I became less and less present in the department, I often found solace in going down to the lake and watching the snakebirds stretch their wet wings as far as they would go and sit there until their feathers settled back into place and they could fly again. Some days, I saw myself in those birds, a strange animal who wasn't sure if her wings would dry, or where she'd fly off to once they did.

We returned to Arizona when my son was three months old. It had been nearly a year since the coffee shop date when I'd met with my colleague and written down the four letters that would ultimately change the direction of my life. Though it was terribly painful, I had committed to finishing out my contract that year, teaching my classes during the day and interviewing for English faculty jobs on nights and weekends while I entered my second and third trimester. But my heart was just not in it anymore; I felt as if I had gone back in time, unearthing drafts of cover letters, teaching philosophy statements, job talks, and teaching demos I'd excitedly and optimistically written the year I graduated. My husband searched for jobs too, hoping this would be the year his applications would float to the top of the pile of literature PhDs. Though I did manage an offer at a highly competitive college in North Carolina, I would ultimately turn it down: no spousal hires, they told us; not here. My husband pushed for us to return to Arizona. We have friends there, he told me. We can teach there until we figure out what's next, he said. There might be opportunities we can't even imagine yet there, he said.

A few months later, after we'd moved back across the country and settled into a small adobe bungalow close to campus, I finally settled into a new life of teaching half-time, helping out with some administrative projects when I could, writing when I could, and caring for our newborn son. Then, in late spring 2020, nearly all of the lecturers in the department who were not on multi-year contracts lost their jobs; the projected enrollment for fall 2020 had dropped to unprecedented low numbers and the department could not support the faculty. The director of our program called me to tell me that she had heard from the office of the provost that an application had recently been accepted to bring an international professional development network for STEM graduate students and postdocs, the Center for the Integration of Research, Teaching, and Learning (CIRTL), to campus. The office was looking for someone to start the first chapter here in Arizona, and because of my background, she'd recommended me.

I looked up the organization. At this point, my relationship with STEM teaching and learning was limited, although not completely non-existent: plenty of the book clubs and pedagogy workshops I'd taken included at least some STEM faculty, and the writing workshops I held always had at least one STEM faculty member in them. I had also taught technical writing to STEM students for years, which sometimes required us to check in with STEM departments to see if our curriculum was complementing theirs. I pulled up my CV, let my eyes wander through my own past, a series of bullet points I'd designed so carefully for my future, and wondered if this was really the time to explore the four letters I'd scribbled down on a napkin nearly two years ago. Could I actually help STEM students on their own teaching journeys? Did I have the credentials, and would anyone trust me? Even more importantly, could I find the courage to step into the unknown again, fully embracing the fact that I didn't know what the outcome would be?

When I got to my publications, something occurred to me. There, the English Journal article my husband and I wrote, it wasn't just about translation activities; it was a study that sought to understand if having international students bring in poetry from their home countries increased motivation in a basic writing course. The Kairos article I co-wrote with friends from graduate school wasn't just about infographics and technical writing; it showed how piloting a unit on infographics increased students' ability to articulate the value of digital literacy. A study I was currently working on with the assistant director of online writing-about how teaching a pre-designed online course can increase confidence in teaching multimodality-was nothing if not SoTL. Like Nowell describes realizing in chapter 2 as she reflected on her career in nursing education, I, too, was starting to practice SoTL without even knowing it. Across my CV, I saw pieces of a larger puzzle I'd never seen before, giving me a blueprint for SoTL before I was aware of it. This kind of "retroactive realization" is not uncommon for many of us, and it is something I often share with graduate students who are trying out classroom-based research for the first time.

How does one know if opportunity is knocking? I wondered. How does one repair a professional heart that has been broken? I am still not sure I can answer these questions, but somehow, I knew I wanted to try. For the first time, I felt empowered to make a choice that was right for me, not a choice I'd been made to believe was right for me. For the first time, I felt ready to step away from the discipline I knew—the discipline that raised me to think like a teacher—and to walk toward a field that felt familiar but thrilling, unmapped, uncharted.

The program I was hired to develop trains graduate students, postdocs, and early-career faculty for teaching in higher education. Though local institutions are responsible for developing their own programming, the CIRTL network emphasizes teaching-as-research, which, as an entry point to SoTL, focuses on teaching instructors to become reflective teaching practitioners by doing a small project on student learning using empirical research. Visually, the teaching-as-research process (widely known as TAR) is often represented as an iterative, recursive cycle, much like the writing process is. To complete the program, students publish or present on the results of their projects in much the same ways that SoTL scholars do. In a sense, CIRTL prepares them to think like a professor who is committed to their craft, a skill that might one day lead them toward a lifelong interest in the scholarship of teaching and learning whether they decide to become SoTL practitioners or simply engage with the literature from time to time.

I had the language to talk to writing instructors, but I did not yet have the right words to talk about teaching in STEM. To find out how graduate students across disciplines are taught to teach, I needed to find mentors who, as McCollum writes in chapter 14, would let me watch "from the sidelines" so I could "take measure of the expectations and norms of the field" and find my footing among a sea of research traditions, disciplinary perspectives, and teaching. I asked my colleague in the teaching center if I could guest enroll in her learner-centered teaching course; I took CIRTL's foundational course, An Introduction to Evidence-Based Undergraduate STEM Teaching; and I asked my new colleague at the University of Iowa's CIRTL program if I could sit in on her TAR workshops for a semester. With each of these experiences, I tiptoed my way into the Zoom calls, worried that everyone would find out that my eagerness was actually profound insecurity. But I also left them wondering if I had simply misunderstood myself for a long time. Maybe I can do this, I remember thinking after one of Iowa's workshops about using SoTL scholarship to justify a project's research question. It reminded me of all the lessons I'd taught in my composition courses about finding sources, using quotations to support an argument, and following citation practices. I had this knowledge within me.

What I didn't have, though, was a sense of SoTL scholarship as it existed outside of my first discipline. This took some time: there were the interdisciplinary journals (*College Teaching*); the discipline-specific journals (*Engineering Education*); and even podcasts (Elon University's 60-Second SoTL). As we started to build the CIRTL program, I found myself skimming through all kinds of new publications, seeking voices that could point the way for us. Cox's work (2003, 2016) on leadership roles and faculty learning communities was instrumental as we thought about inviting more graduate students to participate in our program; Adler-Kassner and Wardle's (2019) work on threshold concepts and writing-across-the-curriculum (WAC) initiatives took center stage as we designed the writing track for the CIRTL certificate; and Henderson, Beach, and Famiano's (2009) article on a co-teaching model in a physics department allowed us to envision and pilot a postdoc co-teaching program.

As I became familiar with how SoTL scholars explored pedagogical challenges and implemented studies to improve them, I, too, wanted to study our programs. On weekends, I read up on SoTL methodologies to see if my work analyzing student writing in writing programs could be a good foundation for preparing survey and focus group questions, coding data, and identifying patterns. *So far, so good,* I remember thinking one night, until I came to a chapter on quantitative data and realized I didn't know what a t-test was nor how to do a linear regression. After taking a deep breath, I told myself, *maybe stick to interviews, focus groups, surveys for now?* 

The world of SoTL has opened up a whole new world for me as a writer, too. I am learning how complicated and fascinating it can be to co-author publications with colleagues and work with scholarship across disciplines. Sometimes, I feel anxious when I see heavy data-driven studies, so I try to look at them with an eye toward what the researchers learned—and I encourage our students doing teaching-as-research projects to do the same when they come across writing outside their disciplinary expertise. When my co-authors and I meet, we talk about style choices, tone, voice, and how best to visually present data; we grapple with whether or not to use the passive voice, how we should organize the introduction, and if we should use IMRD or a narrative to tell the story. Sometimes we end up with Frankenstein monsters of paragraphs—which is, I think, one of the joys of SoTL. So often in the humanities, we write alone.

As I sit and reflect on this major transition in my life, it seems like I should add that transitioning to SoTL is not simply a matter of bringing ourselves to a new context; it is, as McCollum (chapter 14) articulates, not simply a "switch" but instead a multi-year process that simultaneously involves "unlearning" our first discipline's biases and becoming "incrementally aware of the field and its practitioners." It requires questioning what we know from our disciplinary training (for instance, what is the difference between engaged teaching and active learning, and in which contexts do audiences use which terms?), broadening our scope to look at higher education more holistically, more horizontally, and recognizing that while the research methods we've learned in our first disciplines can travel with us into SoTL, other methods might also be worth learning. Graduate school me who was completely immersed in rhetorical analysis of digital travel media could never have imagined herself doing interview protocols and writing Likert-scale questions, but as with any first love, the first is not often the last, and neither is less rigorous than the other.

Over time, I would come to see "the coffee shop moment" as a pivotal one in my professional life, a moment that would come to help me redefine what I meant to the academy—and what it meant to me. Recent theorists, such as Brew (2008), suggest that identities are much more flexible than our academic tribes taught us to believe, and that academics "[re]define themselves as they negotiate among contexts" (434). Forming an academic identity is an ongoing, lifelong process that is shaped—and reshaped—based on where we find belonging. But this can take time. As we know, academic identity emerges from the socialization into academic communities, and these are deeply ideological spaces often full of conflicting messages about who we *should be* and who we actually want to be (Gaus and Hall 2015).

Becoming a writing program administrator was never part of what I imagined my dream job to be, but it taught me a very important lesson: I have always thrived in liminal spaces. It was often the highlight of my day to meet with librarians or instructional designers or the director of our teaching and learning center and talk about curriculum and faculty development and assessment. I enjoyed the puzzle of looking at data to make informed decisions about programs, of working with people who understood math to design metrics that would see into the minds of our student writers, and I enjoyed seeing STEM faculty change their perspectives about writing in our WAC workshops. For many of us, turning to SoTL is a negotiation of who we are and where we belong—and often means a realignment of our academic identities as teachers, academic developers, students, and scholars (Simmons et al. 2013).

But that's all part of a larger narrative. What's more important to this story is that there is an after, even if it takes time to see it and that former faculty can thrive in SoTL positions. Sometimes, I look back on the old me and wonder who she might have become if things had turned out differently: if I'd written that book on the rhetoric of digital travel writing; if I'd gotten tenure at a liberal arts college; if I'd decided not to have children and focused entirely on my research. However, though I do wonder about the parallel life I could have had, I don't miss it anymore. What I think about instead is what I might have missed out on had I not stepped into unfamiliar terrain: the people across campus I've gotten to work with; the graduate students and postdocs I've gotten to learn from; the courses and workshops on writing and inclusive pedagogy I've gotten to facilitate; the research we've done to find out what the graduate students, postdocs, and faculty are learning and find valuable. Though I am nowhere near a SoTL scholar, I know that with time (and maybe a statistics course?) I'll start to see myself as one. As the title suggests—and as many of the contributors to this volume no doubt attest—becoming a SoTL scholar wasn't exactly what I came for, but as it turns out, this "liminal space outside of traditional disciplines" is a world of exciting and creative possibilities (Huber and Morreale 2002, 21; Little and Green 2012; Little 2014).

About a year ago, I wrote my old coffee date an email. I was a little nervous to send it (after all, would she remember me?), but I wanted to tell her that I had taken her advice—and that she had given me a new start when I'd thought my world had ended. I wanted her to know how much that conversation meant to me. She wrote me back right away and told me of course she remembered me and she had a feeling this would be the right path for me. Since then, we've written to each other lots of times, and I've taken her suggestions on pedagogy books, asked her for feedback on projects I'm working on, and talked about new writing projects.

And that led to this chapter.

A special thanks to Dr. Nancy Chick for meeting me for coffee nearly five years ago and giving me the courage to explore a new world.

## **Reflection Questions**

- What part of the narrative resonated most with you? Why?
- If you were to tell the story of your own academic journey, where would yours begin?
- Have you ever struggled with an aspect of your professional or academic identity? Where and how did you look for guidance?

• What advice would you have given to the author in the coffee shop?

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### CHAPTER 11

# REACHING ACROSS THE DISCIPLINES TO BUILD A GRASSROOTS SOTL COMMUNITY

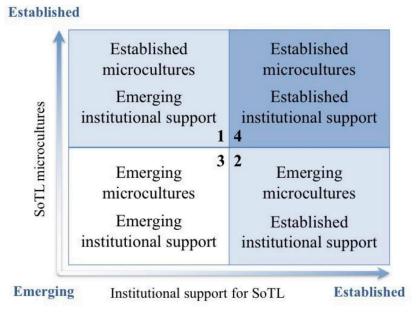
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Nurturing an interest in and appreciation for the scholarship of teaching and learning (SoTL) throughout an educational ecosystem can be challenging, especially at small schools that offer little institutional support and few incentives for such work compared to those available for conventional, disciplinary research. This chapter offers reflections on how three colleagues—a professor, an academic librarian, and an educational developer—have sustained a mutually supportive and productive SoTL team at a small, rural, liberal arts campus with few resources. We will demonstrate how much academics have to gain from reaching beyond their departmental colleagues to those in other disciplines and even academic staff to enrich their SoTL practice.

There are many reasons why someone at an institution that lacks SoTL supports and resources would wish to pursue such work in the first place. For us, it was partly a desire to create better learning experiences for our students in a way that felt systematic, researchbased, and achievable. But it also arose from a desire to develop relationships with like-minded colleagues who felt a deep commitment to teaching and learning inside and outside of the classroom at a small campus that can feel isolated. We work at the Brantford, Ontario, campus of Wilfrid Laurier University in Canada. Bruce is an associate professor of digital media and journalism and a university teaching fellow. Michelle is a full-time academic librarian who also teaches user experience design as a contract faculty member. Shirley is a curriculum and educational developer who also teaches landscape architecture and user experience design as a contract faculty member. To understand our experiences, it is useful first to understand the environment in which we work.

Ours is a satellite campus opened in 1999 and located sixty kilometers south of the institution's original ("main") campus in Waterloo, which opened in 1911 as a Lutheran seminary. A former industrial hub, known for manufacturing farming equipment for the largely agricultural surrounding area, Brantford fell on hard times as its economy eroded in the mid-twentieth century as such work was moved outside of North America. By the end of the century, city leaders were investigating a range of economic development opportunities as part of a municipal revival strategy, including the creation of a university campus in its derelict urban core. It was a strategy that succeeded: today, the Brantford campus has about 3,000 mostly undergraduate students in twenty programs occupying seventeen buildings, including repurposed banks, cinemas, and a large shopping mall. The campus offers a traditional liberal arts education as well as professionally oriented programs such as criminology, game design and development, and business technology management. In the 2021-22 academic year, the campus employed about 86 full-time faculty and 97 contract faculty members according to our faculty association.

It is likewise useful to understand our institutional context with respect to SoTL. To do this, we have used the framework proposed by Miller-Young et al., which measures two key dimensions—SoTL microculture and institutional support for SoTL—on a scale from emerging to established (2017, 4). Today, our campus sits in quadrant 1, with established microcultures and emerging institutional support; but when we began laying the foundation for our SoTL work in 2012, our campus sat in quadrant 3, with only emerging microcultures and emerging institutional support. To the best of our knowledge, no one at our campus was engaged in SoTL work at the time, and there were no apparent institutional resources for such work—there was no mention of SoTL on the university's website



*Figure 11.1. Framework describing institutional contexts (originally published in Miller-Young et al. 2017)* 

or intranet, no funding specifically identified for SoTL, and no SoTL-focused workshops or other supports offered by the teaching and learning centre.

Bruce began his tenure-track appointment in 2010 after eight years of teaching part-time while working full-time as a journalist. He was eager to learn how to improve his teaching and his students' learning and took advantage of the workshops hosted by the teaching and learning centre. Most of those sessions were only offered at the main campus, where all of the university's educational developers were based, which often meant making a two-hour trip for workshops that only lasted ninety minutes. That commute became challenging to schedule around his teaching, research, and service commitments at the Brantford campus, so Bruce tried participating via conference call but found it awkward. Joining by telephone also meant that there was no opportunity to connect with colleagues outside of the formal presentation, so the opportunities to network were limited. In 2012, the teaching and learning centre created communities of practice (CoPs) for faculty on a range of topics, but none were scheduled to take place in Brantford, which Bruce found frustrating, as he felt there were plenty of academics at his campus who would take part.

With the centre's blessing, he created and led a Brantford-based Teaching and Learning CoP. He extended an open invitation to anyone, not just faculty, who wanted to talk about how to improve their teaching and their students' learning. Monthly meetings attracted between four and eight participants that included fulltime professors, contract faculty members, librarians, academic staff, and students from a wide range of disciplines. Discussion topics were decided upon by the group: sometimes, they were based on articles from disciplinary-related teaching journals and sometimes they arose from challenges encountered in the classroom. Although the group never read about or discussed SoTL, that is not unusual for emerging SoTL communities, according to Miller-Young et al.: "These institutions boast vibrant teaching cultures with strong grassroots support for innovative and high-quality pedagogy. Individual instructors and small informal groups of instructors dedicate some of their most cherished resource—their time—to reading about and discussing teaching and learning. And yet, these activities are not widespread across the institution, nor are they necessarily valued as legitimate avenues of research" (2017, 7). Although we did not realize it at the time, we were creating a fertile and interdisciplinary ecosystem in which SoTL practitioners could emerge at our campus.

Interest in the Brantford Teaching and Learning CoP helped make a case for the university to create an educational developer role at our campus, and in September 2014, Shirley was hired. She quickly became an integral member of the CoP and was key in attracting new participants and suggesting research and resources related to the concerns we shared, given her more than fifteen years of combined experience as an educational developer and instructor. She eventually took over organizing the CoP and expanded its offerings to include twice-annual unconferences and regular workshops, such as a two-day course (re)design intensive. It was through these events that Bruce and Shirley met Michelle, who was hired as an academic librarian for the game design and development program in January 2016. She was the first librarian to participate regularly in the Brantford Teaching and Learning CoP and opened our eyes to the emphasis librarians place on student learning in their work, both through library-based appointments but also through classroom visits, and the range of teaching skills they possess, especially in relation to information literacy (ACRL 2015). Over the course of a few months, the three of us recognized a sense of kinship in how we approached teaching and learning across our varied disciplines and the kinds of challenges we sought to overcome in improving our students' learning. Crucially, we shared a desire to change our campus culture from teaching for teaching's sake, being an undergraduate-focused liberal arts campus, to one that was more focused on student learning and research-informed teaching.

It was at this point that Shirley introduced Bruce and Michelle to SoTL, having been part of a group of founding members of SoTL Ontario and having contributed to an early SoTL Canada collaborative writing group project (Kenny et al. 2017). She recognized that we were ready to start moving beyond reading about and discussing teaching and learning to undertaking our own research and knew that SoTL would provide the ideal framework for doing so. Thus, we formed a sort of sub-group of the Brantford Teaching and Learning CoP, which we will refer to as our SoTL trio for clarity's sake. We began our collaboration by reading foundational articles, such as those by Felten (2013) and Brew and Ginns (2008), about the philosophy and goals of SoTL, its interdisciplinarity, and its focus on improving student learning (for detailed advice on how to start a SoTL journal club at your institution, see chapter 5). In those early days, we were what Chick refers to as SoTL consumers rather than SoTL researchers—we were reading about SoTL rather than doing SoTL work (2017). As she notes, consumers' "role as part of our teaching and learning community is no less important" than that of practitioners as we were laying the foundation for future SoTL work through those discussions (10). In our trio, we found it

useful to share our individual views on teaching and research about teaching and how they were informed by our different disciplinary backgrounds. We discussed why and how we wanted to improve our students' learning and some of the challenges we faced in doing so. Through our reading, we realized that what we were doing fell in line with what the literature suggests about how SoTL communities grow-fledgling SoTL communities frequently emerge from small, significant networks of scholars who share beliefs and values about teaching (Poole, Iqbal, and Verwoord 2019; Roxå and Mårtensson 2009). Our experience also aligned with Hamilton's research that shows interest in SoTL often emerges in an informal way, from the bottom up, rather than in top-down fashion: "Usually a SoTL initiative begins with a small group of pioneers in the institution who are interested in studying some issue related to their teaching practices and eventually stumble upon the SoTL-based literature or each other. This helps to assure them that there are others who are interested in the same topic" (2014, 6).

The discovery of those shared beliefs is often predicated on informal, though "significant," conversations that emerge over time, as Roxå and Mårtensson suggest (2009). Although these conversations that gradually evolve into grassroots SoTL microcultures frequently occur within one's own department or discipline, according to Roxå and Mårtensson, that was not the case for us. We ended up developing a stronger sense of rapport with people outside of our home units, which felt more important than finding collaborators with a shared disciplinary context, especially in terms of creating a comfortable, collaborative space in which to give and receive critical feedback. Teaching is typically done in isolation from one's peers, and seeking feedback from colleagues can feel fraught; some academics think that sharing one's insecurities about teaching can make them seem unprofessional or incompetent. Therefore, fostering a community of support for this type of work was essential, and our colleagues' attitudes and values felt more important to us than their subject matter expertise. Although it was not intentional, forming a cross-disciplinary trio also underscored the importance

of academics working with peers in staff roles who can contribute a different kind of expertise and valuable perspectives on teaching and learning that happen outside of the classroom.

As our trio learned more about SoTL, we wanted to grow our ranks; we needed broad knowledge of and support for SoTL across our campus to create meaningful institutional change. The question, then, was how to find potential colleagues and SoTL partners outside of those we had identified through the Brantford Teaching and Learning CoP. To do this, we attended on-campus programming organized by the teaching and learning centre. We looked at these workshops as creative networking opportunities instead of mere content delivery sessions—a way to meet people beyond the usual, siloed departmental meetings we attended. We paid attention to who was asking interesting questions and who spoke about their teaching in a way that aligned with SoTL. In 2015, we identified enough people to launch a SoTL-focused CoP at our campus, meant to help keep our conversations and connections thriving, recognizing that "faculty are most influenced by colleagues within their close, significant networks such as departments and workgroups" (Miller-Young et al. 2017, 2). Members gather twice a year to share their experiences, research, and challenges in an informal setting. We are particularly proud of the breadth of our participants. They include academics from a range of disciplines, as well as counsellors from our campus wellness centre and staff from the writing and study skills centre and the centre for student equity, diversity, and inclusion. It is a diverse group of participants who are deeply involved in teaching and learning inside and outside of the classroom and share a desire to improve student learning through research-informed experimentation.

In organizing this group, we learned many lessons. For example, we had to be deliberate about inviting all members of our campus community, be they full-time academics, contract faculty, librarians, academic staff, or students, if we wanted them to attend. In SoTL, everyone has a role to play in improving student learning, so we wanted everyone to feel welcome. But it is important to make this clear in the invitation and to share it as widely as possible; otherwise, because of how we are socialized in the academy, some potential participants may wrongly assume that the sessions are only for full-time academics. Similarly, it is important to explain what SoTL is in the invitation and even offer links to some of the seminal scholarship. In our experience, many people who are doing SoTL-type work are not familiar with the field, so providing a brief description of its philosophy, aims, and goals can help attract a bigger, broader audience. We also learned the importance of making personal connections with potential participants rather than relying on an email invitation. Our trio arranged informal coffee dates with people to talk about our teaching goals and challenges and explain the basics of SoTL in a way that felt casual and judgement-free. We found this a useful way to move beyond the silos of academia and create a culture that allowed us simply to chat with one another instead of feeling like reviewers or gatekeepers. Building this kind of community can feel slow but ultimately rewarding. While our SoTL CoP members are still mostly SoTL consumers at this point, we feel confident that it is a fertile ground with strong potential to support each other as we become SoTL practitioners and spread the word about SoTL.

As our SoTL trio began organizing and growing the SoTL CoP, we continued our own reading. We were inspired to learn how deeply SoTL was embedded in the teaching and learning cultures of many Scandinavian and American institutions. Coming from an institution where no SoTL work was happening, we were particularly drawn to articles that analyzed the impact of SoTL using the micro-meso-macro-mega framework, which was introduced to the ISSOTL community by Weston et al. (2008) and which has been adopted by numerous authors (see, for example, Poole and Simmons 2013; Simmons 2016; Roxå and Mårtensson 2013; Williams et al. 2013; Kenny, Watson, Desmarais 2016; Eaton 2020). This 4M framework, as Friberg called it (2016), originates from systems theory and has been used as a lens through which to analyze the impact of SoTL across interrelated organizational levels, "where *micro* refers to the individual researcher, *meso* to department level factors, *macro* to the institutional level, and *mega* to disciplinary and interdisciplinary impact" (Simmons 2020, 77). However, we saw a way to use the 4M framework to help reverse engineer a plan to create the kind of SoTL-focused teaching and learning culture that we envisioned for our campus. By identifying the types of supports, stakeholders, gaps, and opportunities that existed at our campus at each level, we could be strategic in how we worked to meet our goals.

We did this through a mapping exercise, visualizing our campus's teaching and learning culture as an ecosystem in which the 4M levels sometimes overlap—rather than being a hierarchical, laddered series of distinct levels-and then identifying the key components at each level. For example, we learned that many institutions had specific funding for SoTL research. Our institution did not, but as part of our mapping exercise, we learned that it did offer a \$10,000 teaching fellowship annually to one full-time faculty member for a project that was related to teaching and learning broadly. We highlighted this as an opportunity at all four levels: at the micro level, an academic who chose to undertake a SoTL project with the fellowship would receive funding for his or her research, and the academics on the adjudication committee and the university's research ethics board, as well as the students who would eventually work on the project, would be exposed to SoTL. At the meso level, the researcher's departmental peers and students would also be exposed to SoTL through research talks and classroom discussions, as well as informal conversations. At the macro level, the visibility of SoTL would increase across our campus through publicity about the teaching fellowship and public talks delivered by the researcher. At the mega level, the reputation of our institution as a place where SoTL is conducted would increase when the research was published. Thus, we found using the 4M framework in this way valuable in terms of deciding how to identify and leverage our existing supports and resources, as well as our own time and energy, to meet our goals. We found it particularly useful to complete as an interdisciplinary

trio, as opposed to a group of academics, as this gave us insight into three different areas of the institution as an academic, an academic librarian, and a curriculum and educational developer. We felt it might also be a useful exercise for other academics at small institutions with emerging SoTL cultures and limited resources and were pleased to be able to present a workshop about it at the ISSOTL conference in 2018 in Bergen, Norway (Gillespie, Goodridge, and Hall 2018).

While our ultimate goal of changing the teaching and learning culture at our institution is ongoing, we are proud of the progress we have been able to make so far. At the micro level, we have been able to support some of our colleagues in evolving from SoTL consumers to SoTL practitioners. For example, Bruce was awarded the aforementioned teaching fellowship, which he used to fund a SoTL research project about using digital games and storytelling to help first-year students build stronger connections between theory and practice, which he presented at the 2019 ISSOTL conference, in Atlanta, USA (Gillespie 2019), and later published in a leading, international SoTL journal (Gillespie 2022). Our two CoPs have also helped foster a stronger sense of community among people interested in SoTL across our campus. At the meso level, Bruce's departmental colleagues and students (those who participated in the study as well as those who were hired as research assistants) were exposed to SoTL. Similarly, Michelle delivered a presentation about her experience of delivering a workshop at the 2018 ISSOTL conference at a departmental meeting of all academic librarians across both campuses, noting that she was the first librarian to receive an instructional development travel grant to do so, thus exposing her peers to SoTL. Shirley also lobbied for SoTL to be included more formally and explicitly in the responsibilities of the teaching and learning centre and in its strategic plan for the first time.

At the macro level, Bruce delivered a research talk about his SoTL project that drew an audience of faculty, staff, and students from across both campuses and a range of academic units, many of whom learned about SoTL for the first time. Our combined lobbying for SoTL work to be recognized as having the same value as conventional disciplinary research contributed to SoTL becoming a pillar of the university's educational development strategic plan and its inclusion in at least one set of departmental promotion and tenure guidelines. These steps provide more support for individual researchers doing SoTL work but also means that discussions about the nature and value of SoTL projects are now had during promotion and tenure meetings, which are attended by faculty, deans, and some of the highest-raking officers of our institution, including the vice-president academic and the vice-president research. Additionally, the teaching fellowship's guidelines have been revised to specify that it be used to support a SoTL project. These may seem like small wins, but they are paving a path toward greater institutional support and awareness. Our future plans include organizing regular meetings of our two CoPs after they went on hiatus during the two years our institution offered remote instruction during the COVID-19 pandemic. We also hope to create an online resource to encourage and educate people who are new to SoTL, including links to some of the foundational literature as well as the types of support available on our campus, such as the SoTL CoP, the teaching fellowship, and the instructional development travel grant, which can be used to attend SoTL conferences or workshops. This resource will help address the imposter syndrome that many academics feel when starting to engage with SoTL and provide encouraging resources and supportive local colleagues with whom to connect (e.g., Simmons et al. 2013).

Changing a university culture takes time. In our experience, the most effective way to do that is to work broadly across the institution and across employee ranks. SoTL is meant to be collaborative—if we want to improve student learning, then we need to include everyone involved in it, not just academics. When faculty and staff at multiple levels are talking about the need to support and promote SoTL work, it carries more weight to the top of the institution. It also means pulling in evidence and best practices from sectors that academics might be less familiar with, particularly for teaching and learning that happens outside the classroom. Working together is our best shot at creating the student-focused, research-informed culture of teaching and learning we want to see at our institutions.

## **Reflection Questions**

- Who are the members of your campus community involved in teaching and learning outside of the classroom and might be interested in SoTL work?
- What qualities are you looking for in potential SoTL partners?
- How would you characterize your institution's SoTL culture using Miller-Young et al.'s 2017 framework?
- Map out the supports, stakeholders, gaps, and opportunities that exist at the micro, meso, macro, and mega levels of your institution. Identify some short- and long-term goals so that you may leverage your time and energy to create the most meaningful change within your SoTL culture.

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#### SECTION 3

## SUSTAINING SOTL ENGAGEMENT

While one of the themes of this book so far has been how the breadth of SoTL can initially be overwhelming for those new to the field, experienced SoTL scholars may have their own needs and challenges. The four chapters in this section speak to a growing demographic in higher education: scholars who have engaged in SoTL and are now looking for ways to continue or even enhance their participation in the field. The authors in this section explore different pathways to continued engagement, such as finding and building on others' work, mentoring others, and reflecting on one's own learning and identity trajectories.

The opening chapter in this section, "You're Here! Now What? A Taxonomical Pathway for Sustained SoTL Research Engagement" by Jeff Paul, Jillian Seniuk Cicek, and Renato B. Rodrigues, presents a taxonomy for SoTL as a tool for developing a SoTL research agenda. Since the taxonomy was derived from a systematic review of the literature, the authors describe how it maps the field, while also acknowledging that a taxonomy may be too reductionist for some readers and too holistic for others. Ultimately, they argue that such a taxonomy provides a common language within SoTL, thus building understanding and connecting studies across the breadth and depth of the field.

Next, in "Complex Journeys and Theory as Scaffolding: An Illustrated Guide to the SoTLscape," Janice Miller-Young experiments with how illustration can contribute to the SoTL discourse. In a graphic essay consisting of four illustrations, she encourages readers to think meta about SoTL in order to situate themselves and their work within a landscape of practice. If scholars need to



compare and contrast their findings with others who've done similar studies, a meta-level view helps them see how to look across studies and make meaning across multiple studies. Her illustrations pull together ideas from the literature on SoTL, identity, career development, academic development, and communities of practice. In the first two illustrations, she highlights literature that contributes to her working definition of SoTL and demonstrates how she thinks of it as a six-dimensional space. In the second two, she shows some of her own SoTL research trajectories, explores what a "landscape" might look like if we are not constrained to three dimensions, and introduces the metaphor of theory as scaffolding. Ultimately, her chapter complements the taxonomy in the previous chapter, as both present very different tools for experienced SoTL scholars to chart their path through the "SoTLscape."

The next chapter in this section is Brett McCollum's "SoTL Mentoring for the Mind and the Heart." In this autoethnography, McCollum describes the development of his professional identity as a SoTL scholar and mentor by using a model of professional identity based on work by Paterson and colleagues to analyze entries from his journal on his teaching and his SoTL work. He reflects on "unlearning" assumptions about research that he learned as a chemist, as well as learning the "hidden curriculum" he encountered in SoTL and how these unlearning/learning processes continue even now as an experienced SoTL scholar. Finally, he argues that the targets of SoTL mentoring should not just be the scholarly mind, but also the scholarly heart.

In the final chapter in this section, Michelle Eady reflects on "Cultivating International Collaborations Towards Sustained SoTL Engagement." She discusses how she reached a point in her SoTL journey where she aimed to broaden her community and extend her influence. She outlines particular initiatives and strategies that can be valuable for scholars at any stage of their SoTL career, also suggesting that these approaches can be especially beneficial for individuals who find themselves isolated within their local contexts. Eady







underscores the importance and benefits of nurturing relationships that endure beyond formal, international project collaborations.

The chapters in this section are written by authors who have been in the midst of shifting their identities for some time. They share various ways to sustain SoTL involvement, whether by gaining a broader view of the field that helps them see where they are, where they've been, and where else they might go, or by developing meaningful relationships with others in the new space (or both). They describe how they cultivate relationships with new ideas as well as people and communities, demonstrating an openness to change which is an essential element in the journey of becoming a SoTL scholar.



#### CHAPTER 12

# YOU'RE HERE! NOW WHAT? A TAXONOMICAL PATHWAY FOR SUSTAINED SOTL RESEARCH ENGAGEMENT

#### Jeffrey W. Paul, Jillian Seniuk Cicek, and Renato B. Rodrigues University of Manitoba, Canada

The scholarship of teaching and learning (SoTL) is a diverse field that welcomes researchers from diverse backgrounds, methodologies, and ways of knowing. However, understanding this diversity can be overwhelming to newcomers as they struggle to adapt their existing skills and expertise to SoTL research questions. These struggles have been written about extensively and exist for researchers from both quantitative (Miller-Young, Yeo, and Manarin 2018; Kelly, Nesbit, and Oliver 2012) and qualitative backgrounds (Potter and Raffoul 2023; Webb 2019), and they are not dissimilar to the struggles faced by the authors of this chapter.

Take me, the first author (Jeff), as an example. When I entered my PhD program in engineering education research (EER), I found many of my existing knowledge sets and skills were not as easily transferable as they had been in my previous career trajectory. I was formally trained in physics and have worked in the fields of geophysics, software, information technology, human factors, as well as satellite communications and navigation. In addition, I have taught courses on these topics in professional settings as well as in undergraduate and graduate programs.

Yet, when I arrived in my EER program, I was overwhelmed by its breadth and diversity. The field, emergent in Canada, included research in topics ranging from cognitive science and learning theories to diversity and cultural aspects of learning, with methodologies ranging from quantitative to qualitative. There was a plethora of paths to walk, distinguished by approaches, questions, methodologies, and theories from which to choose. Initially, I set out to walk in all these directions and tried to master all the aspects of EER. This was challenging, in part due to the breadth, but also due to the diverse ways of knowing. This journey required not only that I adopt an entirely new lexicon, but that I experience a paradigmatic shift: I learned about and wrestled with understanding the (new-to-me) concepts of ontology, epistemology, and axiology. Centred within this challenge was the need to accept that my worldview had been primarily post-positivistic and that there were other ways of knowing that have value. Some of these new ways of knowing resonated more with the questions I wanted to ask in my research, which caused internal struggles.

Then, I discovered the Engineering Education Research Taxonomy (Finelli, Borrego, and Rasoulifar 2015). This taxonomy maps out the diversity of the field, describing the discipline in a manner that allowed me to see where my research interests lay and where they did not. This is not to say that some aspects of EER are more or less important, but rather that I did not need to master all the aspects of EER to conduct my research in EER. I could start my EER journey by mastering some elements while gaining familiarity with others.

The epiphany provided by this taxonomy was essential to my development as an EER scholar. It also suited my post-positivistic tendencies, providing a categorical and organizational way to manage my learning. My agenda was set . . . until I began to recognize through reading, talking to like-minded people, and attending SoTL events and conferences that my research interests were more suited to and at home in SoTL. So, I shifted my journey's direction and became a novice SoTL scholar.

In seeking the knowledge, skills, and lexicon to belong to SoTL, I found my struggles paralleled my struggles to understand EER, and I sought out a SoTL taxonomy to help guide me. Though I found some informal taxonomies, such as Hutchings' four questions of SoTL (2000) and How's (2020) systematic literature review that analyzed 181 published SoTL articles, there was no comprehensive SoTL taxonomy. And SoTL is a broad field, often described as interdisciplinary, multidisciplinary, cross-disciplinary, or transdisciplinary (Poole 2013), making my need for support even greater.

So, with the encouragement of my co-authors and the editors of this book, we began this collaborative project to create a SoTL Taxonomy. I, and those I work with, have found so much value in a taxonomy on our journeys into new disciplines that we're convinced others will too. This includes people like me, novice SoTL scholars, particularly those entering this field with post-positivistic training and mindsets, but also experts who may find that mapping the field can help position their research.

This chapter will show how a SoTL taxonomy can be used to aid you on your journey into SoTL. A taxonomy can help both novice and expert SoTL researchers gain an understanding of the breadth of the field, connect to and build upon earlier work, and finally, transform disconnected SoTL inquiries into a SoTL research agenda. To achieve these goals, this chapter will also provide a general overview of taxonomies and introduce our current SoTL Taxonomy.

Before we begin, we share our positionalities so that you can understand more about our author team and how our personal journeys have influenced our need for this taxonomy.

# **Author Positionalities**

The first author (Jeff) is also the narrator for this chapter. I have almost twenty years of experience in adult education, both in higher education and professional development. If asked, though until recently I did not have the words for this, I would have identified myself as a scholarly teacher (i.e., I sought out education research and instructional design best practices to improve my teaching) with SoTL tendencies (i.e., I tried different pedagogies and shared my successes informally with other instructors). Currently, I am a PhD student in engineering education research (EER) studying how to improve instructor pedagogical competencies. My research is driven by my grievance that "there has to be a better way to develop an effective instructor than allowing them to practice on students for twenty years," which has been my experience until now. Within SoTL I have finally found an academic home where I feel I belong. In my recent engagement with the SoTL community, I am helping develop a SoTL taxonomy that I hope, and believe, can be beneficial for others.

The second author (Jillian) has over twenty-five years of combined training and experience in education. She identifies as an EER researcher because she found an academic home and community there, and it is the context in which she conducts her research. Currently, she is one of a handful of academics in Canada whose research agenda is formally EER (e.g., she is not doing this work off the side of her desk!). She recognizes there is a spectrum of disciplinary educational research and is interested in how researchers in informal or nascent disciplinary spaces find a "home." She was invited to author this chapter to consider how pathways to becoming an EER scholar can inform thinking on developing a SoTL research agenda. She is pleased to wrestle with these ideas with the co-authors of this chapter, who are two PhD students in her research group.

The third author (Renato) is an early-career educator and researcher with a background in engineering and philosophy, pursuing a doctoral degree in EER. He is passionate about teaching and believes that educators should be facilitators of student learning rather than mere "holders of knowledge." His diverse perspective on educational practices stems from his experience as a student in five different universities across two countries and as a teaching assistant for nine instructors in six different courses. Recently, he taught his first course and engaged in SoTL practices to enhance his teaching and, more importantly, improve student learning outcomes. Just as the EER taxonomy helped him navigate and better understand the EER field, he believes that the SoTL Taxonomy can serve a similar purpose for those in the field of SoTL—including himself.

In summary, we come from varied academic backgrounds and diverse experiences, and yet we share one important similarity: we have found boundary crossing into EER and SoTL challenging. By making this challenge overt (by writing about it, using the EER taxonomy, and, in this case, developing a SoTL taxonomy), we have found ways to navigate new (to us) fields. We offer the SoTL Taxonomy as one way to navigate the potential challenges of SoTL. We hope (and believe) it will benefit both newcomers and experts in this field.

## What Is a Taxonomy?

Hierarchical taxonomies, our focus in this chapter, originated in the biological sciences as a linked categorization tool that included broad to specific categories (e.g., order, family, genus, species, kingdom, phylum, class). When hierarchical taxonomies are discussed more generally, these categories can be referred to as the trees, branches, and sub-branches. The use of taxonomies has expanded beyond biology to be used as *knowledge organization systems* (Hedden 2010), and they are now common in many fields.

In hierarchical taxonomies, it is essential to define the trees and branches using a *controlled vocabulary* and the *native language* of the field. That is, each word has only one specific meaning, and the language used must align with common use by practitioners in the field (Hedden 2010). Additionally, a taxonomy must be *complete*, describing all relevant aspects of the field and allowing the user to uniquely classify all elements within the taxonomy, be they animals or research papers. Note that a taxonomy is not necessarily static, as it should change and grow as the field evolves and new concepts are defined. These changes may include expansion by adding new terms and sub-branches or contraction through the pruning or removal of unused branches (Levy 2004). These changes should occur organically and be based on how the taxonomy is used by the practitioners in the field.

Essentially, a taxonomy categorizes a field of study in an organized manner. It ensures each aspect of the field is uniquely identified and demonstrates its relationship to other aspects of the field. For us, on our journey, this organization provides a map of the field, helping us understand where we are, what we already know, what type of questions we can ask, and how we might be able to answer these questions.

## Developing a SoTL Taxonomy

In our introduction, we argued that a taxonomy can help a scholar understand their field; but developing a taxonomy starts with a definition of what you are trying to classify. When introducing the concept that has evolved into SoTL, Boyer (1990) did not provide a clear definition. Since then, there have been so many attempts to define the SoTL field that other authors have lamented the plethora of definitions. Evocatively, Poole and Chick (2022) found that the "definitions of our field surface like burrowing animals on a golf course, and that the debates about such definitions take place with occasional sprinkles of angst" (6). Fortunately, though there are many definitions, they tend to be similar and focus on the same core principles or ideas. Thus, despite their differences, each provides a foundational (though somewhat nuanced) understanding for the practitioner. Additionally, wrestling with this plethora of definitions helps the newcomer make sense of the field. Perhaps there are so many definitions because writing your own requires you to think about and conceptualize the field. This is particularly important in fields like EER and SoTL, as they born of other historically long-standing scholarly traditions. Thus, despite the warnings, and with enthusiasm, we add our own definition to the growing list to make transparent our understanding about the field and to anchor our work in developing this SoTL Taxonomy:

SoTL is the systematic investigation of a question that originates in the teaching and learning environment of a *discipline, which is then submitted for public dissemination and peer review.* 

This definition is a synthesis of many other definitions and captures four key aspects: *what* is being investigated (i.e., the question), *how* is it being investigated (i.e., the research method), *where* the study is taking place (i.e., the context), and *dissemination* (i.e., the formal or informal sharing of and review of the research findings). In practice, each of these aspects is somewhat personal, as SoTL researchers tend to investigate questions that arise from the teaching or learning of *their* students in *their* classroom or program in *their* discipline.

This definition describes the basics of what SoTL means, but like most other definitions, it tends to be abstract. What is a "systematic investigation" in a SoTL context? What types of "questions" are SoTL questions? Thus, these aspects (*what, how*, and *where*) became the central trees for our SoTL Taxonomy, and the answers to the above questions became the branches.

#### An Overview of the SoTL Taxonomy

Our proposed SoTL Taxonomy was constructed following the principles outlined in Hedden (2010). The process included mining the literature for definitions, frameworks, and descriptions, which we categorized to build our initial taxonomy. Then, through consultations with experts in the field, the taxonomy continues to be refined and expanded with feedback from the community.

A high-level summary of the trees and top-level branches is shown in table 12.1. The column headers in table 12.1 represent the three trees of the SoTL Taxonomy. These trees are directly related to and expand an aspect of our synthesis definition. The **Research Focus** expands *what* question is being asked (the stimulus for the research), the **Research Context** expands *where* the research is taking place (this includes both the physical location and the level of learning), and the **Research Approach** expands *how* the investigation is being conducted (which includes the methodologies, data sources, and theoretical frameworks). Note, sharing—or

	2. Research Context (Where)	3. Research Approach (How)
What is the research question? What Where is the research taking place? is being investigated?		How is the question answered?
T This is the learning issue that has ar piqued the curiosity of the SoTL in researcher. Within this tree, there tr are seven branches:	The context can be narrow or wide and includes both disciplinary and institutional aspects. Within this tree, there are five branches:	This describes the theoretical and methodological approaches used in the study and is described in three branches:
	2.1 Discipline	3.1 Research Method
<ul> <li>1.1 Pedagogy</li> <li>1.2 Assessment</li> <li>1.2 Assessment</li> <li>2. Assessment</li> <li>2. Assessment</li> <li>2. Acchnologies</li> <li>2. Accolorized and</li> <li>2. Accolorized and</li> <li>2. Accolorized and</li> <li>2. Accolorized and</li> <li>3. Accolorized and<!--</td--><td>level ivestigation</td><td>3.2 Data Source 3.3 Theoretical Framework</td></li></ul>	level ivestigation	3.2 Data Source 3.3 Theoretical Framework

Table 12.1. SoTL Taxonomy trees and major branches

dissemination—is also a key aspect of SoTL as demonstrated in our definition; however, it is not included in the SoTL Taxonomy at this time. Our current rationale is that the taxonomy is intended, among other purposes, to provide keywords for publications, thus the taxonomy is intended to *advance* dissemination rather than *categorize* dissemination.

The purpose of a taxonomy is to categorize—in a sense it concurrently expands and reduces a field. Though a taxonomy may seem too reductionist for some readers and too holistic for others, this is the beauty of a taxonomy: it can serve the needs of diverse users once they are familiar with how to use it. Taken as a whole, a taxonomy can be understood as a map of the field.

#### The Branches of the SoTL Taxonomy

While a discussion of the development of the SoTL Taxonomy is outside the scope of this chapter, below we outline the branches of our evolving SoTL Taxonomy. For readers who are interested in how it was developed, we are in the process of developing a publication describing how the specific trees and branches emerged.

In this section, we outline only the first-level branches of the taxonomy.

**Research Focus:** *What is the research question?* The first tree of the taxonomy focuses on what is being investigated. This is the teaching and learning problem that has piqued the interest of the SoTL researcher. Within this category, there are seven branches:

1.1 *Pedagogy*. This branch focuses on the type of learning and the learning environment. This branch covers both teaching **and** learning to align with the native language of SoTL. This branch of the taxonomy includes eleven different sub-branches, such as how the material is taught (e.g., Classroom or Seminar), the learning method being investigated (Active Learning, Problem-Based Learning, etc.), conceptual learning issues (e.g., Threshold Concepts), and Curriculum/Course Design. In general, the focus of this branch is on *how* learning occurs.

- 1.2 Assessment. This branch focuses on research questions that seek to investigate how learning is being measured or assessed, with the understanding that these are the generally accepted (or used) proxies for learning. There are nine sub-branches in this branch: Grading System, Self-Assessment, Peer-Evaluation, Homework, Feedback, Rubric, Portfolio, Exam, and Assessment Models.
- 1.3 Learning Tools and Technologies. This branch focuses on the research questions that seek to understand how specific tools or technologies affect learning in the classroom. It is expected this branch will expand and grow as new technologies are introduced, or old ones are discarded. Currently, this branch has seven sub-branches: Slides/Presentation Tools, Multimedia, Simulation, Virtual Reality, Student Response System, Learning Management System, and Electronic Course Portfolio. We have used generic terms for each of these tools (e.g., Student Response System instead of iClicker) to make the taxonomy more generalizable.
- 1.4 *Equity in Learning*. While most of the above branches are about learning, this branch focuses on issues that impact learning and aligns with the work of Chng and Looker (2003), who argued that much of non–North American SoTL focuses on issues external to the classroom, as well as the work of Finelli, Borrego, and Rasoulifar's (2015) EER Taxonomy. Here, there are thirteen sub-branches, such as Diversity, Sexual Orientation, Decolonization, as well as the impact of Geopolitical Conflict and Natural Disasters (e.g., the pandemic) on student learning. These are critical societal issues that will impact higher education in the future, and we expect both that they will be the subject of significant SoTL research and that this list will expand.

- 1.5 Academic Support. Within this branch are seven other sub-branches: Mental Health, Physical Health, Mentoring, Tutoring, Academic Advising, Office Hours, and Career Advising. Each of these has been shown to impact student learning (and retention) and has been the subject of SoTL research.
- 1.6 *Student Success*. There is some SoTL research on factors that impact student success and the view of students as holistic beings rather than only as "learners." Within this branch, we list six sub-branches: Motivation, Engagement, Attendance, Graduation, Retention, and Performance.
- 1.7 SoTL Studies. There is significant research written on studying or philosophizing about SoTL; some is focused on the field, and some is focused on an individual's career or identity. Though this research is not directly focused on learning in the classroom, it does form a significant body of SoTL publication; thus, we have included SoTL Studies as the philosophical/introspective branch in the taxonomy. Within this branch, we include eight sub-branches: Defining SoTL, SoTL Policy, Career Advancement, Institutional Support, Community of Practice, Identity, Epistemology, and Research Quality.

**Research Context:** *Where is the research taking place?* The second tree focuses on the SoTL researcher's own context for their investigation. As SoTL is multidisciplinary and lives along a spectrum, the context can be narrow or wide. Within this tree, there are five branches:

2.1 *Discipline*. This branch captures the disciplinary information as broadly (e.g., STEM, SoTL) or as narrowly (e.g., Fine Arts, Quantum Physics) as needed to allow others in the discipline to connect with this research. We have not listed all sub-branches here as SoTL can be in any discipline.

- 2.2 *Learning Level.* This branch captures the learning level as broadly (e.g., K-12, graduate), or as narrowly (certificate, first year) as needed to allow others to understand the transferability of the research to their context.
- 2.3 *Setting.* This branch focuses on the location of the investigation. It includes six sub-branches: Classroom, Extracurricular, Workshop, Laboratory, Studio, and Formalized Work Experiences. Note that the classroom branch has sub-branches for physical and virtual settings. This helps others understand the transferability of the research to their context or find research that directly represents their own context.
- 2.4 Scope of Investigation. Not all SoTL research takes place in a single classroom. Some larger studies span these sub-branches: Department, Institutional, Regional, National, and Global, or as Fanghanel et al. (2016) describes as, micro, mesa, and macro "levels of practice." Though these studies are much less common than single-classroom or program studies, they are part of SoTL research and usually have different approaches, thus the need to capture this aspect.
- 2.5 *Population.* Lastly, not all SoTL studies focus directly on students. Thus, this branch includes eight sub-branches: Student, Faculty, Staff, Instructor, Teaching Assistant, Tutor, Mentor, and Academic Advisor. Note that though the subject of the study is not directly the student, the goal is still to understand the impact of this subject on student learning (e.g., the effect of a formal TA training program on student learning).

**Research Approach:** *How is the question answered?* The third tree focuses on how the research is being conducted and provides the methodological rigour and theoretical foundation for the research, described in three branches. In this tree, theory enters the discipline of SoTL:

- 3.1 Research Method. There is currently an abundance of richness to the approaches taken in SoTL. This branch includes a wide range of methodological approaches, including formalized systematic methods (ranging from positivist to interpretivist) and introspective methods. The introspective methods sub-branch represents the importance placed on reflective practice or what Weimer (2006) calls the wisdom of practice within SoTL. Indeed, Poole and Chick (2022) cite introspection as a pillar of SoTL. Systematic methods include Quantitative (Descriptive Statistics, Inferential Statistics, Experimental Research, and Regression), Qualitative (e.g., Case Studies, Content Analysis, Ethnography, Grounded Theory, Narrative Enquiry, Phenomenology, and Phenomenography), Mixed Methods (both Sequential and Concurrent Approaches), Literature Reviews and Classroom Action Research. As an aside, given the focus of some authors on the active partnership with students in SoTL (Felten 2013), a case is sometimes made that all SoTL should be considered classroom action research.
- 3.2 *Data Source*. This branch focuses on classifying the data used in the SoTL study. This includes eight sub-branches: Surveys, Interviews, Focus Groups, Course Deliverables, Grades, Institutional Feedback Forms, Course Material, and Classroom Observations. Though some of these are often connected to a specific research method, many can and are used across multiple methods (e.g., surveys can be quantitative or qualitative in nature), thus the need to uniquely identify the data source in the taxonomy.
- 3.3 *Theoretical Framework*. This branch of the taxonomy focuses on connecting SoTL research to an underlying theory. Though this focus on theoretical foundations is relatively new within SoTL research, it is seen as a potential need (Miller-Young and Yeo 2015). A clearly identified (and used) framework helps "define, frame, or ground the focus of

a study" (Magana 2022); thus, this tree helps SoTL researchers frame their research. This branch includes the following sub-branches: Cognitive Theories, Social Cognitive Theories, Affective Theories, Critical Theories, and Developmental Theories.

## How a SoTL Taxonomy Helps in Your Journey

Similar to the personal struggles discussed in the introduction, researchers often arrive in the SoTL field with their own well-developed expertise and lexicon. They have mastered their discipline's language. However, as I experienced in my own journey into SoTL, the language of SoTL can be very different: the same words from your disciplinary home and SoTL can have different meanings, or different words can have the same meaning. These competing languages can lead to miscommunication, thus the need to learn to "speak SoTL" (Webb 2019). In this way, the taxonomy provides newcomers (and experts) with a Rosetta stone outlining a common vocabulary of SoTL because it is written in the *native language* of the field.

As well, not only does each researcher arrive with different masteries, but they also arrive with differing gaps in their knowledge when entering the field. STEM researchers may need to develop their qualitative understanding. Humanities researchers may need to develop their empirical methods. A common pathway does not exist. By organizing the field and laying out the language, the newcomer gains an understanding of both what they already know and what they need to learn.

For a clear example of this, compare the writing voices of Matthew A. Fisher (STEM) in chapter 7, with that of Nancy L. Chick (humanities) in chapter 8 of this book. Not only do both these authors discuss their struggle to understand and successfully publish in the "SoTL language," but they also discuss how they have had to adapt their voice to that of SoTL. It is clear that they faced very different challenges in their journeys. Interestingly, in their writing, we can still see the "accent" of their home discipline. A taxonomy helps put this struggle in perspective. By overtly organizing the breadth, the newcomer (or expert) is no longer faced with abstract, disconnected concepts. This mapping will enable them to see connections. It will allow them to focus their learning on the aspects of SoTL connected to their research interests, to find like-minded researchers to form a community, or to seek out complementary partners to help develop missing skills.

Or, as we will show in the next two sections, the SoTL Taxonomy can help connect SoTL research to earlier work or help identify a SoTL research agenda.

#### Using a SoTL Taxonomy to Share Your Work

One of the goals of SoTL is to share one's work, but this also means you must also be able to find others' work. Thus, the most overt application of the taxonomy is using it to generate keywords for journal publications. Though SoTL journals do provide some guidance on the use of keywords, rarely do they provide comprehensive restrictions or defined words that must be used (for example, *Teaching & Learning Inquiry* only provides guidance on the number of keywords). This can lead to inconsistent descriptions (i.e., using different words to mean the same thing), vague descriptions (i.e., failing to use keywords for an aspect of the study).

When sharing SoTL work, we suggest that using the taxonomy to guide keyword selection by choosing at least one keyword from each tree normalizes the description of SoTL research in a consistent manner with a uniform level of detail. This will ensure searchability and visibility so SoTL researchers can find, connect, and disseminate their work and the work of others in the field (Finelli, Borrego, and Rasoulifar 2015).

#### Using a SoTL Taxonomy to Build on Earlier Work

When searching for SoTL work, the problem of finding relevant research is more complex for two reasons: the interdisciplinary nature of the field and the fact that SoTL research is often conducted in a local context (e.g., a specific classroom, teaching modality, etc.). Thus, one is unlikely to find existing research in your context, and instead, you must find research done in other contexts and determine if it is applicable.

Essentially, SoTL research usually produces transferable results rather than generalizable results (Friberg 2018). Matthew Fisher discusses the challenges of transferability vs. generalizability in detail in chapter 7. It is an innate struggle for some scholars coming to SoTL, and the challenges Matthew faced provide some insight into the nature and origin of this struggle. However, though this preference for transferability over generalizability is not true for all SoTL research, it is common and arises from two inherent aspects of SoTL research. First, SoTL studies are often qualitative in nature, where transferability is usually the more accepted goal (Lincoln and Guba 2006; Carminati 2018). Second, many SoTL studies (even quantitative) focus on limited data (e.g., a single classroom), thus the ability to produce generalizable results is limited, and the importance of the results lies in the analysis in that context. However, there are also SoTL scholars working on large, formalized studies that do seek generalizable results, and others are encouraging generalizable approaches (see Miller-Young and Yeo (2015) for an excellent review of this debate). Thus, while SoTL studies do tend to focus on transferability, SoTL is a big tent that accepts and encourages many approaches in many contexts.

By emphasizing transferability, the responsibility of applying the research findings falls on the reader. The SoTL researcher presents their findings in their own context (e.g., the impact of spaced practice on first-year physics exam results). Then the reader decides whether these findings can be applied to their own context, which could be vastly different (e.g., a fine arts studio class). Thus, when seeking applicable SoTL research, the field and context (*where*) may differ significantly, but the research topics (*what*) may still hold relevance. So while generating keywords for your own research, we recommend selecting at least one keyword from each tree. When searching for others' research you may need to determine which trees (and keywords) are most relevant so that you can transfer the research to your context.

For both these issues, a clear language ensures SoTL researchers can share their findings and find others' work more effectively. That is, by using a *controlled vocabulary*, SoTL researchers' work is categorized and thus more consistently searchable.

#### Using a SoTL Taxonomy to Develop Your Research Agenda

Perraton (2000), in discussing a new research agenda for education, stated that "unless research is grounded in theory, it cannot be much more than data gathering" (1). However, it can be difficult for new SoTL researchers to be aware of or understand the breadth of theories that can support a SoTL project. The concrete nature of the taxonomy can help SoTL researchers. First, it makes it overt how theory can be connected to a SoTL project; the *Research Context* tree includes a branch describing the theoretical framework. Not only does this remind the SoTL researcher to frame their project in a theoretical context, but the sub-branches lay out potential theoretical frameworks to do this. This includes basing research on an appropriate theoretical foundation, such as education (e.g., constructivism), critical theory (e.g., intersectionality), etc.

In addition, the *Research Focus* tree provides further examples on how these potentially abstract theories (e.g., threshold concepts, active learning, etc.) may be implemented in the classroom. The importance of the taxonomy is not to define or limit a SoTL research study, but to ensure that the SoTL study considers the theory behind the study. For a new (or experienced) SoTL researcher, this can be an essential, often unconsidered, step.

Lastly, as the SoTL researcher integrates theory into their approach, the taxonomy can help reveal new research inquiries. Like all researchers, we often look for gaps in our understanding. Within SoTL, the gap lies not only in a theoretical understanding of how learning works but also in a practical understanding. Can we transfer the results of other studies to our context? In some cases, this may be obvious (from one STEM course to another), but in other cases (recall the first-year physics introductory class to a capstone fine arts project course), it may require additional study. Thus, by considering the theory, as opposed to only our context, we open the breadth of potential research inquiries available to us.

Perraton (2000) advised that a research agenda should be "seen as something grounded in theory that can lead to improved practice" (1). Given that improved practice is the goal of SoTL, the taxonomy helps by overtly revealing theoretical frameworks or identifying appropriate methodologies that can be used to transform an initial pedagogical curiosity or informal research question into a fully-fledged research agenda.

Note that though we have framed this use of a taxonomy as a personal research agenda, many authors in this book have discussed the importance of community in developing as a SoTL scholar. A taxonomy can help here as well; for example, it may help provide a roadmap to guide journal clubs. Here, the taxonomy addresses one of the issues discussed by Suart, Ogrodnik, and Suttie in chapter 5—how to find literature to learn the landscape of SoTL. The taxonomy directly addresses this issue by providing keywords, laying out the breadth of the field, and acting as a learning map.

#### Final Thoughts: The Benefits of a SoTL Taxonomy

In this chapter we presented a SoTL Taxonomy and discussed how it can help navigate three specific challenges in SoTL: gaining an understanding of the SoTL field, finding and linking SoTL research, and developing a research agenda. In addition, the diversity of disciplines involved in SoTL can create epistemological challenges for newcomers and experts alike as they must master new ways of knowing as well as new skills.

The taxonomy does not directly provide the coordinates but rather helps us map these challenges. Learning to become a SoTL scholar is a rewarding endeavour, but as Kelly, Nesbit, and Oliver (2012) stated, mastery of this field "demands an immersion in a different intellectual language and culture, experiential learning, personal reflection and an iterative process of moving backwards and forwards between the familiar . . . and a different way of thinking. Above all, it demands time" (4). A taxonomy provides a tool to help develop SoTL research: the standardized language and classification provides consistency across studies that, along with the mapping of the field, makes it easier to position and connect one's research to the existing body of knowledge, as well as identify potential gaps in the existing literature. A taxonomy also enables researchers to broaden their interests by learning about different (but related) terms and to potentially refine their research methodologies by identifying new and, perhaps, more suitable ones for the types of questions they ask. With this knowledge at hand, SoTL scholars can move their research forward with more strategic thinking by developing a research agenda. It will help increase the significance of their advancements by making their contributions to the literature more visible and impactful.

In the end, perhaps the most important contribution of the SoTL Taxonomy is the recognition and celebration of the breadth and depth of SoTL, and its impact on our understanding of and advancement of teaching and learning across diverse contexts. The SoTL Taxonomy is the *big tent* made visible. We offer it as a celebration of all that SoTL has done and can do.

## **Reflection Questions**

- Throughout this book, many of the chapter questions ask about the difficulties you've encountered in your journey to becoming a SoTL scholar. How might a SoTL taxonomy help you address these difficulties?
- Choose a favorite SoTL article, one that you or another person has written, and conceptualize it through the taxonomy, assigning at least one keyword from each branch. Next, using the taxonomy, investigate how you could change or continue to develop this research by, for example, choosing a different research method, a different context, or a different focus. How would this help you advance your research agenda?

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  - Having applied the taxonomy, how might you revise or adapt it?

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#### CHAPTER 13

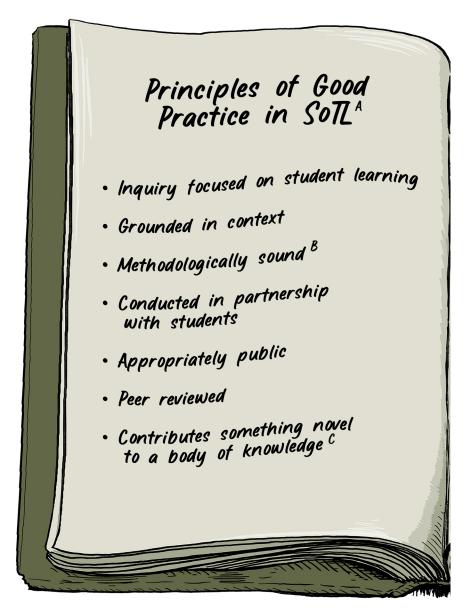
# COMPLEX JOURNEYS AND THEORY AS SCAFFOLDING

## An Illustrated Guide to the SoTLscape

#### Janice Miller-Young, University of Alberta, Canada

In this graphic chapter, I visually reflect on some of my own SoTL journeys, what the SoTL "landscape" looks like, and the potential role of theory within that landscape. First, I explain these graphics as briefly as possible. Since there are so many definitions of SoTL, I've learned to always begin by describing what I mean by the term (figure 13.1). As part of that definition, I also think of SoTL as a six-dimensional space (figure 13.2). (In math and physics, the dimension of a space is the number of characteristics needed to describe a location within it. A landscape implies three dimensions [North-South, East-West, Up-Down]. Time is usually defined as the fourth dimension, and more than four dimensions, theoretically, allows for time travel and multiple timelines.)

What does a SoTL journey look like when conceptualized in more than three dimensions? A SoTL trajectory may be theoryor practice-oriented (Roxå, Olsson, and Mårtensson 2008). In my experience it can also be both, as well as messy and multidirectional with many vortices, cul de sacs, and wormholes along the way (figure 13.3). Finally, I think of the multidimensional SoTL landscape as consisting of overlapping disciplinary and multidisciplinary communities of practice and boundary spaces (Wenger-Trayner and Wenger-Trayner 2014). To gain a meta-level view across these communities, I can step onto the scaffold of theory (figure 13.4).



*Figure 13.1. This is my own working definition of SoTL (A. Felten 2013; B. Miller-Young and Yeo 2015; C. Kanuka 2011).* 

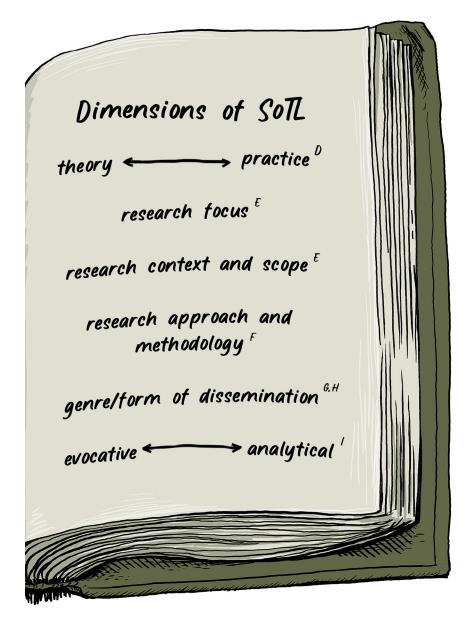


Figure 13.2. To me, any given SoTL project could be described by up to six dimensions, as listed above (D. Roxå, Olsson, and Mårtensson 2008; E. Paul, Seniuk Cicek, and Rodrigues, chapter 12; F. Yeo, Miller-Young, and Manarin 2023; G. Cook-Sather, Abbot, and Felten 2019; H. Poole and Chick 2022; I. Halpern 2023).

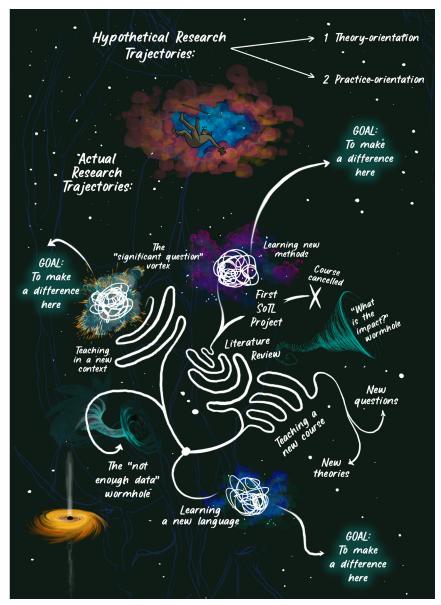


Figure 13.3. Learning to do SoTL has sometimes felt like falling through space, looking around desperately for something familiar to latch on to: a question, methods, theories, language—anything to give me some direction. On the other hand, each SoTL project has had its own messy, complex learning trajectory, shown above, some of which overlap in time.

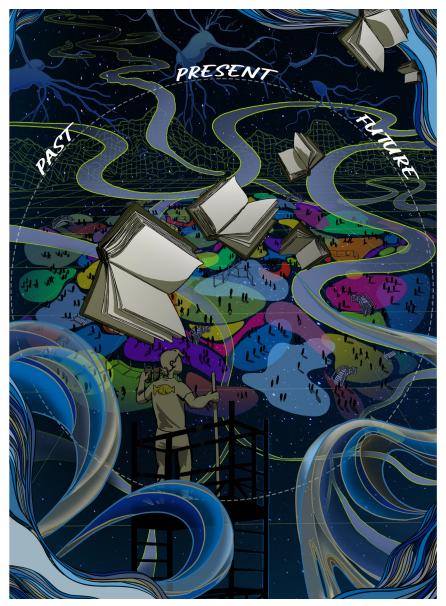


Figure 13.4. Standing on the scaffolding of theory gives a broad perspective across the SoTLscape so that I can compare and contrast my findings or connect my work with the ideas of others, thus making meaning. This theory scaffold is not permanent; it is socially constructed and can change over time. I need to always be aware of the foundation on which it rests and the material of the scaffold itself. Sometime in the future, I may need to stand on a different scaffold.

## **Reflection Questions**

- What is your working definition of SoTL? Do these dimensions resonate with you?
- How would you visually map your SoTL journey?
- What is the role of theory in your SoTL work?
- What communities of practice do you belong to and what boundaries might you aim to cross in order to advance your SoTL work?

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## CHAPTER 14

# SOTL MENTORING FOR THE MIND AND THE HEART

#### Brett McCollum, Thompson Rivers University, Canada

Nearly one hundred years ago, Patrick (1924) argued that institutions promote a culture of teaching excellence—what we now call scholarly teaching (Potter and Kustra 2011)—not "by requiring the teacher to show his worth as an investigator but by making him prove that he is a teacher and in stating that the profession of teaching be given its proper recognition" (Patrick 1924, 16). Despite these acknowledgements of the centrality of teaching within the mission of the university, most faculty engaged in the dual roles of educator and researcher are primarily evaluated on the latter. A turning point came in the form of Boyer's seminal work (1990), which laid the foundation of scholarship of teaching and learning (SoTL) and scholarly teaching.

SoTL both investigates and informs scholarly teaching practices through systematic inquiry and dissemination, two hallmarks of academic scholarship (Glassick, Huber, and Maeroff 1997). SoTL provides a way for scholars of teaching and learning in higher education to gather from across the academy, to learn and contribute to our methodological plurality (Divan et al. 2017). Yet, to respectfully engage with SoTL colleagues that come from different disciplinary traditions we must be prepared to "unlearn" our discipline's methodological biases. For example, intentionally or not, my undergraduate training as a chemist instilled in me a perception that only quantitative inquiry is research—the rest is all opinions and feelings. Even though I have "unlearned" this bias against qualitative research, I routinely have other chemists encourage me to do "real research" by obtaining quantitative metrics to support my findings. SoTL mentors who respected where I was coming from, and understood where I wanted to go, helped me in my journey of "unlearning" my disciplinary traditions as the universal academic norms I thought they were. The biases that I had may not be the same as those you have/had, but we all adopt research culture and traditions from our disciplines. Mentoring across the disciplinary divide, as often happens in SoTL, prepares us to navigate the methodological pluralism landscape of SoTL.

In this chapter, I will explore my own journey of learning about SoTL, becoming a SoTL scholar, and my current role as a SoTL mentor. I will position my journey within the contexts of my academic training as a chemist and my faculty position at an institution with a centre for SoTL, using my teaching journal as a research artefact. The dates in my journal, and the narrative it captures, reveals that my transition into SoTL was not a moment in time, but a multi-year process. It involved incremental awareness of the field and its practitioners (addressing the scholarly mind) as well as a consistent message of methodological pluralism that celebrated diverse ways of thinking (addressing the scholarly heart).

I aim to convince you, the reader, that the unlearning journey necessitates more than just expanding our scholarly framework to include new content knowledge or pedagogical content knowledge. It involves more than training or retraining of the scholarly mind. It challenges our established identity. It threatens the expertise that we have devoted years to cultivate. Exploration and acceptance of different traditions for discovering, validating, and establishing knowledge—in other words, becoming capable of critically evaluating scholarly work that can inform our own research and practice but draws upon unfamiliar methodologies—requires an open scholarly heart. Thus, as established SoTL scholars engaged in mentoring of new SoTL scholars, we must address both the scholarly mind and heart.

# Framework and Methodology

Drawing upon Cant and Higgs' study of professional socialization (1999), Paterson et al. (2002) identified themes related to professional identity formation in their study of professional reasoning and selfdirected learning in a clinical setting. Through careful reading and comparisons across disciplinary boundaries, Skagen et al. (2018) reframed, positioned, and explored the findings of Paterson et al. in the context of undergraduates discovering their professional community through online collaborative learning with peers in international settings. The key professional identity requirements (PIRs) that carried across the disciplinary boundary between nursing education and chemistry education were the abilities to:

- 1. successfully employ the technical skills and reasoning processes of the discipline—doing and thinking like experts in the discipline/field;
- 2. identify and understand the expectations and norms in the discipline—mastery of the hidden curriculum; and
- 3. self-reflect and evaluate one's own learning within the discipline—metacognitive practices.

Using this model of professional identity, I will explore my own journey of discovering SoTL, becoming a SoTL scholar, and my current role as a SoTL mentor. I will connect the PIRs to the targets of SoTL mentoring: the scholarly mind and heart. In this effort, I draw from my personal reflections (journaling) of my SoTL journey. Quotations from my teaching and SoTL journal will appear in this text indented and in italics. I aim to facilitate your own "unlearning" of disciplinary norms so that you can better support new SoTL scholars that come from scholarly backgrounds with methodological, epistemological, and social traditions far from your own.

# A Chemist Discovers SoTL

My beginnings are rooted in radiation chemistry. Joining an academic research team during my first year as an undergraduate, I was the youngest researcher to have worked at Canada's national facility for particle and nuclear physics, TRIUMF. Thus, from an early stage of higher education, my specialization in using antimatter for spectroscopy has had a strong influence on my ways of thinking. Studying the unseeable world forced me to question how knowledge is established in a discipline. I marveled at debates long unsettled over models that could not be proven or disproven based on current understanding. Most of all, without knowing it, I had become a cognitive constructivist (Piaget 1953).

Despite the call from Hutchings and Clarke to position scholarship of teaching and learning "at the very heart of graduate education reform efforts" (2004, 166), few graduate-level courses or programs focus on the scholarship of teaching and learning (Reano, Masta, and Harbor 2019; Auten and Twigg 2015; Chick and Brame 2015). I was unaware that there were research teams investigating teaching and learning outside of schools of education. It was midway through my graduate training that I learned about the field of chemistry education research (CER), a field that fits within the broader discipline-based education research (DBER) landscape. Although there are distinctions between CER and SoTL (and between DBER and SoTL), those differences are beyond the scope of this chapter. For current purposes I will treat CER, DBER, and SoTL collectively, as many of the aspects of mentoring apply across the fields described by these three terms.

My interest in epistemology and its connections to teaching and learning led me to participate in a three-day instructional skills workshop (ISW) as a graduate student at Simon Fraser University led by Nadine Wicks (then a MSc candidate), followed by a year-long program. The ISW was not part of my graduate program. Fortunately, my supervisor provided assistance with the associated fees.

The ISW programs provided an entry point for me to the teaching and learning literature. The mentoring I received was on scholarly teaching not SoTL, yet it helped lay the foundation to my SoTL identity. In my observations, these two ISW programs emphasized technical teaching skills (PIR-1) and metacognitive practices (PIR-3).

I had a great time with the mini-lesson practice today, teaching nuclear transmutation. The two criminologists were really excited when they successfully predicted the product. The flow of explicit learning objectives, focused instruction, and active learning worked great. I wish I had experienced more of this in my learning. Then again, it's one thing to provide direct support for active learning with only a handful of learners. How would you do this for a class of 600 students?

Prior to the ISW, I had been a successful student in didactic learning environments. Exposure to new pedagogical methods was exciting, but also unnerving due to my lack of experience with these other approaches. During the ISW, I learned technical skills associated with teaching and the application of SoTL literature in practice. Perhaps the most influential aspect of the ISW program for me was its structure as a learning community. The facilitator and the participants were engaged as a group to support one another as colleagues. At no time did the mentoring and peer-mentoring feel like an expert-novice hierarchy.

Seeking to learn more about pathways for research on teaching and learning in chemistry, I reached out to a professor in the faculty of education with a science background. I was actively advised to not pursue my interest of CER in higher education contexts. My mentor's position was that federal research funding agencies in Canada were inadequately supporting inquiry of STEM learning in higher education, and thus a successful faculty career would be unlikely. While I appreciated the mentoring, you might say that I didn't heed the advice.

Unlike my situation, some individuals have benefitted from opportunities to develop as scholars of teaching and learning during their formal academic training. However, in the relative absence of doctoral programs and broad national funding for SoTL, many scholars join SoTL networks after employment as faculty or staff in a higher education. This peri-employment migration from disciplinary research to SoTL takes courage and perseverance, with new SoTL scholars taking as long as a decade to develop professional identity in their new field (Webb 2019). This explains the popularity of community-focused training initiatives in SoTL, as well as the discomfort of the migrants due to "contrasts between SoTL and their discipline's epistemology" (Miller-Young, Yeo, and Manarin 2018, 3). For established disciplinary researchers, regression or reversion to a less developed self-efficacy has been documented as a barrier to becoming a SoTL scholar (Webb 2016).

Choosing to continue my journey into CER, I attended a large (>1,000 attendees) conference devoted to the field. I gravitated toward presentations that were in my comfort zone—projects that had used quantitative methods and sessions on teaching physical/ computational chemistry. Still, I felt overwhelmed in several ways: novel research jargon, unfamiliar research methods, and a community where I knew no one but they all seemed to know each other. I was an outsider. Fortunately, the community was inviting, and I didn't retreat back into my comfort zone as a chemist working solitary night shifts at the particle accelerator.

I left the conference knowing that I needed to seek out additional mentors. Although I felt confident that I could engage with the literature to learn appropriate theory and begin developing new technical skills (part of PIR-1), I wanted guidance on the experimental design and reasoning processes (the remainder of PIR-1) used in teaching and learning research. I needed a SoTL mentor for my scholarly mind.

## My Journey as a SoTL Mentee

Shortly after I began my position as an assistant professor at Mount Royal University, the Institute for SoTL (now the Mokakiiks Centre for SoTL) facilitated its first cohort of the new SoTL scholar program. The institute and its programming established a highly successful SoTL mentoring community at MRU. Instrumental to its impact was support from administration, allocation of funding, and recruitment of a SoTL expert who would cultivate the peer mentoring community that we now have. I was already engaging in discipline-based educational research and attended the Biennial Conference on Chemical Education, so I had begun to understand the expectations and norms in chemistry education research (CER). However, SoTL was still unclear to me. It appeared to emphasize rigorous scholarly methods, but I had heard a range of opinions on what was, and what was not, scholarly output in SoTL. The situation was similar to that described by Tierney et al. (2020).

One of the individuals who participated in the SoTL scholars program early on was Dr. Janice Miller-Young. She shared her experience with her colleagues in the faculty of science and technology at our faculty council. I journaled my reflections after her presentation.

Engineering prof (JMY) spoke at FC [Faculty Council] today on how she designed and refined her RQ [research question] for Engineering Ed. SoTL very similar to CER. Differences? New silo or will it inform and draw from other T&L research? Hearing everyone talk about it on campus, it sounds like there is a greater range of methods being used in SoTL (certainly in qualitative stuff) than I've ever done. Benefit of other methods – you can explore very diff type of RQs.

These early exposures to SoTL scholarship came in short interactions, so they felt less threatening than they might otherwise have. The tone was always one of invitation, not expectation. I felt I had space to reflect on my interests, and my career, in relation to SoTL prior to making any commitment. As my interest grew, I was able to observe others in their own journeys to take measure of the expectations and norms of the field. I appreciated the opportunities represented by the broad range of methodological traditions within the SoTL community, while simultaneously feeling daunted. I also felt more comfortable taking my time to learn the hidden curriculum of SoTL, so as to avoid a spectacular methodological or scholarly-culture failure that could undermine the scholarly credibility I had built up in my discipline. While observing SoTL from the sidelines may not be the steady-state we desire for others, it was a safe starting point for me as I developed my confidence and professional identity in SoTL (PIR-2).

After publishing a quantitative research paper in the *Journal of Chemical Education* (McCollum et al. 2014), I knew I needed to learn more about other research traditions, particularly qualitative research. I was able to learn about different methodologies through reading, which improved my ability to employ scholarly approaches found in SoTL (PIR-1). However, on my own and without mentorship, I recognized that I wasn't able to fully develop familiarity with the norms and standards of the field (PIR-2) no matter how much observation I did from the sidelines. Furthermore, I had begun to consider that my limited familiarity with the cultural and methodological norms of SoTL may be limiting my ability to reflect and effectively evaluate my competencies with new ideas and methods (PIR-3).

In contrast to the expert-novice mentoring structure common between a faculty member and their graduate student trainees, SoTL training initiatives generally involve a peer mentoring collaborative structure (Kahn et al. 2013). This model reflects the academic experience and established scholarly profiles of many SoTL novices. While SoTL-curious individuals may seek mentoring with regards to research design, methodologies, or appropriate entry points into the literature, these scholars bring a rich array of skills and traditions with them to their inquiries on teaching and learning. Each SoTL scholar undertakes a highly personal journey, framed by their experiences, environment, and the SoTL questions that brought them to the field (Hutchings 2000). Navigating this journey requires motivation to learn new scholarly approaches, embrace new ways of thinking, and manage their time and emotions (Kelly, Nesbit, and Oliver 2012). Community-focused training initiatives that draw upon expert and peer mentoring have been found to be effective for supporting individual scholars during the initial stages of their SoTL journey (Simmons et al. 2013).

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Hubball, Clarke, and Poole (2010) found that mentoring through communities of practice supported new SoTL'ers in navigating key epistemological and methodological questions, ultimately attaining publication. I had reached the point where to continue growing, I needed a mentor and a community of peers to grow, fail, and succeed alongside. I desired mentorship to help me navigate the "hidden curriculum" of teaching and learning inquiry. I applied for and was accepted into the Nexen SoTL Scholars program. At the same time, Janice Miller-Young was appointed as the new director of the institute and Deb Bennet was partially seconded to support the Nexen SoTL Scholars program. My journal contains an entry from the first on-campus retreat where Bennet mentored me in identifying which theoretical frameworks might be effective choices to explore my research interests.

I'm having trouble trusting that these approaches are sufficiently rigorous. I can only imagine what Paul [my doctoral supervisor] would have to say about these 'mushy' methods. If you can't quantify it, how can you trust it? I'm thinking back to the years collecting data, struggling, and discarding failed models before generating a successful model that could successfully 'predict the future'.

I kept seeing opportunities for confirmation bias in qualitative work. How do researchers avoid this? I still haven't figured it out.

I appreciate that Deb didn't get offended by my concerns/ interrogation. She also didn't give me an answer. Instead, she prompted me to think about what limitations my methods have and how I address or acknowledge them. More thinking to do on this! And more reading to do. Hmm. [Crude sketch of a person looking at a computer screen, with speech bubble "If I squint the right way I can see a signal in my data ....]

Deb Bennet skillfully practiced effective SoTL mentoring by guiding me to resources that would nurture my scholarly mind and by disarming my frustration and discomfort with new ways of thinking through thought-provoking questions that expanded the capacity of my scholarly heart. Not only was I coming to better understand the logical considerations of qualitative research (PIR-1) and developing appreciation for the diversity of norms within the broad SoTL community (PIR-2), but I was also less dismissive of scholarly approaches and traditions different from my own. Without abandoning the scientific lens through which I had come to make sense of the universe, SoTL mentoring had positively influenced me so that I was better able to appreciate other ways of investigating and understanding knowledge.

## Navigating the Hidden Curriculum

With SoTL mentoring, and through my own perseverance, I felt I was successfully employing the technical skills and reasoning processes found in SoTL (PIR-1). However, the SoTL journey involves more than just learning new skills. Educational settings have unspoken social norms, expected behaviours, and implicit values referred to as hidden curriculum (Cornbleth 1984). Conveyed and expected without explicit intent, or perhaps even awareness, by established members of a community—such as educators in a teaching and learning setting—the hidden curriculum shapes social interactions and influences the success of inductees—learners—within the community. Learners unfamiliar with the hidden curriculum face barriers to participation and success, impeding their progress with respect to PIR-2.

Hidden curriculum exists within my discipline of chemistry. It can be representations of established social structures, such as "textbooks using illustrations which only showed chemistry being undertaken by men, might communicate an implicit message that chemistry is primarily suitable for males—even if no such claim was ever made in class" (Taber 2020, 310). It can be physical safety oriented, such as the time that I carried a miniature Erlenmeyer flask out of a fumehood before rinsing it and I immediately collapsed from the vapors rising from a single drop of concentrated ammonia. You only make that mistake once.

Among the hidden curriculum of my chemical training was the message that research on the natural world involves quantitative metrics that are reproducible using different instrumentation by different researchers. I learned that results must have the demonstrated properties of validity and reliability. Thus, as discussed earlier, the implicit corollary was that conclusions that are not based on quantitative data are questionable at best. The Claim-Evidence-Reasoning method of instruction in chemistry has become even more explicit in recent years (Moon et al. 2019, 484). The emphasis on evidence and falsification is important in the sciences. It frames how observations are collected, hypotheses are tested, and models, laws, and theories are established, used, refined, or replaced.

The SoTL community too has hidden curriculum with cultural and methodological traditions different from my experiences as a chemist. Uncovering and mastering the hidden curriculum of SoTL has been a significant part of my SoTL journey. It is not out of the ordinary to see friends meeting at the annual ISSOTL conference hug when they see each other. While culturally normal in the SoTL community, hugging is not a cultural norm when chemists and physicists meet at the international muon spin spectroscopy conference. Similarly, the mannerisms expected when challenging a colleague's work at a SoTL conference are vastly different than the approaches I observe within a physical chemistry symposium. A line of questioning at a chemistry conference might be considered interrogation of a conclusion, while that same approach could be interpreted as interrogating the presenter in a different setting. This isn't to suggest that one approach is ideal, kinder, or more rigorous. Rather, my journey into SoTL involved navigating distinct traditions and assessing which of the new social norms I was comfortable adopting as part of my professional identity within that space.

The SoTL literature contains hidden curriculum. Reading SoTL articles written in narrative styles—such as this one—was a foreign experience to me. I had been trained to avoid using the first person

in my academic writing. In terms of citation styles, chemists use superscript numerical citations often placed at the end of a sentence. The reader's eyes happily skim past the citation, comforted that "a fact is a fact" so it does not matter who initially made the claim unless the reader needs to dig into that specific reference further. Initially I found the citation styles used in SoTL journals distracting, with names and dates fragmenting sentences and ideas with the obligatory parentheses. One of my SoTL mentors tried to explain how the way they read an article changed depending on the citation style, from APA to Chicago to MLA to Harvard. Their explanation of citations styles did not convince me, but I trusted them. I resolved to metacognitively reflect on how I was reading.

A salient moment on academic citation styles occurred for me when I was reading a collection of papers on phenomenography. The manuscripts were discussing the research framework using the same terminology, but the interpretations and application of those terms were distinct. If these were chemistry articles, I could have searched the International Union of Pure and Applied Chemistry Gold Book (IUPAC 2019)-the Compendium of Chemical Terminol*ogy*—to determine who was using the term in the correct manner. More likely, the incorrect usage would have been flagged during peer review and alignment with IUPAC standards would have been expected. I found no comparable resource existed to resolve the differences in terminology use in the phenomenography papers. I read more papers to determine which author was correct and which was incorrect, only to discover that I had misunderstood the dynamics at play. Rather than working from shared definitions to generate competing (and falsifiable) models, the manner in which the authors were defining the terms was an inherent part of the competing (conceptual) models. Thus, the citation styles that explicitly identify author and year made sense to me. In SoTL I would need to know who had made a claim, and learn the theoretical lens of that writer, in order to assess the applicability of those findings within my own context.

At times, I feel as though I have still not uncovered all the hidden curriculum of SoTL. Perhaps this is due to its multidisciplinary and interdisciplinary nature. It might be connected to the evolving nature of the field. The tensions between different research traditions have not been resolved by the SoTL community, nor do I think they will be. Rather, these tensions are acknowledged, and our differences are respected—even celebrated—and are a fascinating aspect of the expectations and norms of SoTL (PIR-2). The mentors who have supported me in reaching this understanding have helped my scholarly mind and cultivated appreciation for other research traditions in my scholarly heart.

My mentors, before and after my participation in the Nexen SoTL Scholars program, have demonstrated sufficient interest in my scholarly growth as to ask questions more often than give answers. Their probing or critical questions stimulated deep self-reflection on my expertise, my scholarly strengths and deficiencies, and what I want to explore about teaching and learning (PIR-3). Reading my journal entry, and reflecting on the experience, I question how a more defensive or confrontational response from a mentor could have affected my SoTL journey. This has given me pause. What are the defining characteristics of SoTL mentorship/menteeship? While models and styles of mentorship can be investigated, successful SoTL mentorship cannot be distilled to a list of actions or traits. The approaches that are successful will depend on the individuals involved.

### From Mentee to Mentor: Nurturing the Scholarly Heart

For many SoTL scholars, the transition from our discipline to SoTL is a gradual process (Webb and Welsh 2021). So too is our transition from SoTL mentee to mentor. Given the breadth of methods employed for teaching and learning studies, I still often find myself enjoying the mentee role, albeit with more joy and less cognitive dissonance than before. I doubt I shall ever stop seeking out mentors. As one's professional identity in SoTL matures, your responsibility and opportunities to give back to the community as a mentor increases. I have been privileged to have the opportunity to participate as a mentor in formal and informal (Mathany, Clow, and Aspenlieder 2017) mentoring. Most of these individuals have untaken their own boundary crossings into SoTL (Kensington–Miller et al. 2021). It has involved mentoring across disciplines (Gillespie, Goodridge, and Hall, chapter 11), and mentoring across distances (Eady, chapter 15). Some mentoring interactions were brief and single events, others have been sustained.

I took a subsample of my journal entries from when I served as a SoTL mentor and deductively coded them using the three professional identity requirements. While no clear temporal hierarchy emerged, I did observe that newcomers to SoTL often sought support in mastering the hidden curriculum of SoTL (PIR-2) early in their journey. There were fewer mentoring requests, but not zero, around the other two PIRs from scholars near the start of their SoTL journeys. Analysis of the words I used to describe these interactions suggests a focus on knowledge accumulation related to SoTL research methods (PIR-1) and scholarly expectations for SoTL publishing (PIR-2), demonstrating the academic tendency to attend to the scholarly mind.

As familiarity with cultural norms, epistemologies, and scholarly resources were mastered, mentees were more likely to engage in metacognitive practices (PIR-3). They asked themselves questions about what they knew about teaching and learning, what they wanted to investigate, and what were effective—and ineffective strategies for such investigations. They sought feedback on their understanding of theory and methods. These reflective practices demonstrated an on-going need of the scholarly mind. However, there were also conversations about ways of knowing and questions that revealed new respect and appreciation for previously foreign methods. A change had begun within the mentees' perspectives of other disciplines far from their own. Furthermore, there was an expanding focus on the context of their inquiry: teaching and learning of students. Example words from my journal used to describe these interactions include empathy, struggle, caution, barriers, excitement, and enthusiasm. Both the new appreciation for diverse methods, and the emphasis on improving student success, demonstrate that the scholarly heart is a major target of these metacognitive practices.

A third stage of mentee development emerged in my analysis. This stage tended to occur after a mentee had completed data collection on a SoTL project and was nearing completion of their dissemination. The process of writing, of employing the scholarly skills they had already mastered in their "home" discipline but were now applying to SoTL, was less challenging than they had believed at the outset of their journey. Having mastered the hidden curriculum (PIR-2) and devoted time to essential metacognitive practices (PIR-3), they were adequately prepared to apply the knowledge they had earlier solicited about SoTL project design to demonstrate the technical skills and reasoning processes of a SoTL scholar employing the selected theoretical lens and methodology (PIR-1). This included skills such as (i) reasoning through the SoTL problem they intended to investigate and formulate it into a research question; (ii) understanding their responsibilities for the ethical conduct of research and the process for securing institutional approval if required; (iii) designing and conducting an effective study; and (iv) disseminating their findings in an appropriately public manner.

Examining my journal across my SoTL mentoring, is there a set of reasoning processes that I observed common to all SoTL scholars at the third stage of mentee development? No. Nor was I surprised by this. While I was the constant in each of those mentor-mentee interactions, those that I was interacting with came from many different disciplinary traditions. A SoTL mentee's initial reasoning processes appears to be rooted in their academic origin story—their disciplinary training—and thus I see much of my own journey in that of other chemists transitioning from chemical laboratory research to SoTL. The reasoning processes that mentees adopt along their SoTL journey appear to be influenced by the projects that they work on, the methodologies that they select for those projects, and the literature that they read in that work. SoTL embraces methodological pluralism, and with that comes the variety of reasoning processes and metacognitive practices found throughout the academy.

In this third stage, my role as a mentor had been reshaped from being a guide or way finder to that of a fellow traveler and critical friend. Analysis of the words I used to describe these interactions clearly indicates a strong shift toward mentoring for the scholarly heart. Thus, unlike mentoring in chemistry, for this stage of mentoring in SoTL it becomes less important that mentor and mentee occupy the same research niche. Instead, a shared interest in particular metacognitive strategies or a willingness to explore new strategies appears to be important.

Friberg et al. (2021) recently proposed a developmental framework for mentorship in SoTL that involves three stages. An isomorphism appears to exist between the three professional identity requirements that carried across the disciplinary boundary between nursing education and chemistry education and the SoTL mentoring framework of Friberg et al.

Professional Identity Requirements	Mentoring Stage	Mentoring Target
PIR-2: Mastery of the hidden curriculum	Mentoring in	Scholarly mind
PIR-3: Metacognitive practices	Mentoring through	Scholarly mind (minor) and heart (major)
PIR-1: Doing and thinking like experts in the field	Mentoring onward	Scholarly heart

*Table 14.1. Isomorphism between professional identity requirements and mentoring stages in SoTL* 

Perhaps the most important distinction between mentoring in SoTL and some other research domains is the necessity for SoTL mentoring to be founded on compassion and an openness to new ways of thinking, targeting the scholarly heart. While this includes empathy for students—our partners in SoTL inquiry—it particularly extends to the SoTL novice who is often an established scholar in another field. SoTL mentors and mentees may come from different scholarly backgrounds, without shared disciplinary traditions or terminology. Thus, experts and novices must work together to listen and create shared meaning. In this way, the nature of mentoring and being mentored by fellow SoTL travelers is less instructional than it is collaborative.

This reveals an inherent benefit of SoTL mentoring for the mentor: the opportunity for future collaboration. I continue to enjoy collaborating with my former SoTL mentors, and I appreciate opportunities to work as research partners with colleagues who I have mentored. Growing my personal/professional network of SoTL mentors and mentees has expanded my understanding of what constitutes scholarship. It has allowed me to further influence and advance the teaching mission of postsecondary institutions. In my work as a SoTL mentor, I have developed as a seasoned educational leader.

Teaching involves empathy, compassion, and listening. Effective SoTL mentoring requires similar actions. However, in many cases SoTL mentors are supporting a colleague who has demonstrated excellence and expertise in a field that the mentor knows little about. SoTL mentors must meet their mentees where they are, aiming to understand their needs and guiding them, rather than telling them solutions to assumed questions or challenges. Effective SoTL mentoring requires intentionally asking questions more often than providing answers. Most of all, SoTL mentoring involves maintaining a focus on the ultimate objective of SoTL: to improve student success. Thus, even as SoTL mentors emphasize the importance of scholarly rigor and kindle persistence and methodological expertise in their mentees, they also strive to nurture compassion for all learners, including those unlike themselves. With effort, the scholarly mind yields excellence. With time, the scholarly heart changes lives.

# **Reflection Questions**

- Which of the three professional identity requirements (PIRs) was most important to you at the beginning of your SoTL journey? Which is most important to you in your current role as a SoTL mentor or mentee? Why?
- What hidden curriculum have you uncovered in your discipline or in SoTL? How has this hidden curriculum impacted your practice or professional identity?
- What advice do you wish you had been offered in your SoTL journey for (i) your scholarly mind and (ii) your scholarly heart?
- How can you use SoTL mentoring to sustain your own career engagement?

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### CHAPTER 15

# CULTIVATING INTERNATIONAL COLLABORATIONS TOWARDS SUSTAINED SOTL ENGAGEMENT

### Michelle J. Eady, University of Wollongong, Australia

Many of us who have been long-time advocates of the scholarship of teaching and learning (SoTL) don't simply "talk the talk" but we "walk the walk" of the work that we hold so dear. Within our successful, multifaceted careers in academia, we often refer to our SoTL activities specifically as "our passion work," our "heart work," or our "opportunity to be the difference in higher education." We do this by enacting visionary and effective pedagogical strategies, collecting meaningful data about this work, sharing our passion for enhancing our students' learning, and forging meaningful connections with colleagues doing similar work. Finding such connections and developing a sense of community with SoTL colleagues can feel like coming home to a familiar, caring, and intellectual group of scholars who also want to be that difference in higher education.

At some point in our careers, many of us feel the calling to expand this heart space beyond like-minded colleagues. We want to extend the reach of our SoTL work and our SoTL ethos. Of course, we still hope that our own students reach their full learning potential, but we also want to influence decisions and effect change in higher education more broadly. This chapter considers international collaboration and community as one path to extend this reach and, in doing so, to sustain ongoing SoTL engagement. Throughout the chapter, I juxtapose my personal reflections on growing my own international SoTL community with some of the literature on such connections.

### SoTL at Home

I have often found myself rather alone and surprised by how competitive, cubical, and cold academia can be. As a trained teacher, I found my metaphoric backpack full of care, compassion, and kindness but without a hook to hang it on.

Williams and colleagues (2013) encourage SoTL practitioners to think of themselves as agents of change and identify different spheres of influence. Similarly, Miller-Young and colleagues note that "many SoTL scholars reach a stage in their careers where they want to grow the field, to influence decisions, and to effect change in their local environment, in the broader [national] context, and beyond" (2017, 1). Williams and colleagues observe that most of our influence occurs within our local contexts, where those of us involved in SoTL are, according to Dan Bernstein, "highly valuable" to our institutions and "provide an accessible model of excellence" (2013, 36–37).

However, we also know that not every institution recognizes this value. The ever-changing nature of higher education, with increased diversity on campus and pressures of publishing in high-impact journals, compounded by the often-siloed feeling of academics, can result in a lack of connections with like-minded colleagues on our own campuses (Ansmann et al. 2014). Additionally, SoTL can be shadowed by an uninformed reputation (Hubball, Clarke, and Poole 2010), leaving SoTL academics feeling isolated (Webb 2019; Simmons et al. 2021). Effecting change and finding like-minded colleagues in these contexts can't be achieved overnight. Sometimes it may feel like, as Bortolin (2018) suggests, going to a party that no one else seems to really want to go to. In these situations, we may turn outward for community, collaboration, and a sense of agency to effect change.

### Finding an International SoTL Home through Forming a Community

I remember the 2015 conference of the International Society for the Scholarship of Teaching and Learning (ISSOTL) in Melbourne, Australia. It was my entry into the international SoTL community, and it changed my working life. I had been attending conferences for at least twenty years, but I had never experienced what it was like to enter a building with so many like-minded and enthusiastic scholars. I found myself bumping into people whose work I had read, and I saw researchers and practitioners who hail from Europe, Asia, Australia, North America, and South Africa come together for a common purpose to share, to learn, and to work together for the betterment of teaching and learning. I then decided to use the ISSOTL conference to find new colleagues and collaborators. I felt it was important to have my voice heard, and I don't mean in a formal presentation. I mean as in, clear your throat, turn up the volume, put on your smile and work the room! When I learned to do that, I began to connect with the people, and my whole academic world began to change.

Kensington-Miller and colleagues explore their experiences of crossing boundaries to help their SoTL work "travel and relocate across multiple disciplines and contexts" (2022, 2). The concept of creating communities has also been discussed in this text by Gillespie, Goodridge, and Hall (chapter 11), where the authors discuss building SoTL communities from the ground up, and by Suart, Ogrodnik, and Suttie (chapter 5), who employed journal clubs to form communities of practice in SoTL. When we reach far outside of our local contexts "to find non-hierarchical collegial support outside of one's institution," they illustrate, we may find a "supportive community" where we can "collaborate on SoTL projects, seek membership in a community where we find a sense of belonging, and provide support to those who find themselves in the liminal space within their institutions" (11–12). In "How Did I Get Here? Reflections on Learning from Multidisciplinary Communities of Practice" (2016), Miller-Young similarly explores how engaging in multidisciplinary community of practice assisted in her own learning about SoTL. When scaled to the international level, such communities of practice—or groups of colleagues who come together to learn, to share, and to work on projects or topics of common interest and values (Wenger, McDermott, and Snyder 2002; Tierney et al. 2020; Williams et al. 2013)—can also build awareness of important and common global issues in higher education, forecast and promote innovation and change, and bridge the research/practice nexus in multidisciplinary, multilingual, and intercultural settings (Chaka et al. 2022; Huijser et al. 2021).

At the 2016 conference, a colleague excitedly shared about a presentation she attended on "small significant networks" (Roxå and Mårtensson 2009, 2012; Verwoord and Poole 2016) and introduced me to some other attendees from that session. We all lived in various places around the world, but we were drawn to one another through our common interest in SoTL and a desire to learn from and alongside one another. By the end of the week, we formed a conference buddy group and "pinky swore" that we would keep our network alive by meeting regularly online and keeping reflective journals. We stayed true to our promise and built an ongoing SoTL community for ourselves. In the end, we also collaboratively wrote and published two pieces about our small significant online network group (SSONG) (Eady et al. 2019; Green et al. 2020). To this day, we still stay connected, continue to work together, and look forward to seeing one another at each ISSOTL conference.

I've also had the privilege of being invited into major international collaborative experiences (ISSOTL's ICWGs and Elon's research seminar, described below) that resulted in highly recognised, peer-reviewed papers and conference presentations but even more importantly life-long connections with mutual thought leaders in teaching and learning who will remain life-long friends.

The conference may be the most obvious site to forge these connections, but there are also specific initiatives that provide structure and support for international communities of practice for SoTL scholars. These may be more inviting to those who are less comfortable making and maintaining new connections on their own. ISSOTL's International Collaborative Writing Groups (ICWG) bring together people who are interested in SoTL but who are also typically strangers. Kensington-Miller and colleagues describe their experiences in an ICWG and note that their group has stayed active since it started in 2019, including in the writing of a 2022 article entitled "Our International SoTL Journey." They also observe that "remaining active after fulfilling our formal commitment to write one manuscript together is an enactment of agency and empowerment that speaks volumes about our intrinsic motivations to be engaged with SoTL and with one another" (2022, 11).

Another structured opportunity comes from Elon University's Center for Engaged Learning (CEL) in the United States. They sponsor a research seminar series that forms and supports international, multi-institutional, multidisciplinary research that's perfect for SoTL academics (Elon University, n.d.). These three-summerlong opportunities are an excellent opportunity for scholars to build their international connections and result in journal publications, books, and projects that can span over several years, as well as relationships that can outlast the formal groups.

### Bringing It Back to Campus

Many singular moments and encounters have developed into long-lasting and career-building relationships for me. Today, I work with highly motivated, productive scholars from around the world who are also doing their "passion work" and participating in international communities that aim to make a difference in teaching and learning. These long-distance relationships have brought the most professional satisfaction, collaborative change, personal growth, and joy over my nearly twenty-year career. But as Brenè Brown reminds us, "Courage starts with showing up and letting ourselves be seen" (2015, 30), so I started letting myself be seen on my campus. I started talking about teaching and learning scholarship, initiating SoTL projects in my own classes and with colleagues, and started to write and present about my work there. I feel better positioned to help fellow colleagues and administrators in my institution understand SoTL and its important contributions to higher education.

Finding connection and meaning within such international SoTL communities doesn't mean we are leaving our home institutions behind. Long-time SoTL advocates can attest that small nudges and steps forward in SoTL often lead to pushing through and taking giant leaps. Indeed, Dan Bernstein argues for the local value of SoTL scholars as those whose "identity is connected with external values, events, and information" because they are "more likely to acknowledge a formal body of expertise in their work and more likely to make reference to an external community when evaluating quality and seeking innovation in ideas and practices" (2013, 37-38). More specifically, he explains that SoTL scholars with these broader connections "do a great service to a community by serving as an efficient conduit to the best practices, innovations, ideas, and resources outside the immediate campus" (38). He argues, "There may be no better way to attract enrollment than to highlight how many cosmopolitan faculty members are active and honored in SoTL communities around the nation and the world for their success in enhancing learning" (38).

Ten years after Bernstein's article, I would argue that the practices, innovations, ideas, and resources we bring back to our campuses are even more valuable in this post-pandemic age. The SoTL community has always been an alliance of educators, academic developers, and practitioners who care about our students and our approaches to teaching and learning that lead to success in all facets of the higher education experience (Eady et al. 2021). Now more than ever is the time for us to reach out, raise our voices in collaboration, and be the difference in higher education.

### **Reflection Questions**

- What are your SoTL communities?
- What would it look like to bring some of them together to forge a larger, more far-reaching community?
- How might an international collaboration change the direction of your work?
- What does your institution need that you might be able to provide through international connections?

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#### SECTION 4

### **BECOMING A SOTL SCHOLAR**

The final section of *Becoming a SoTL Scholar* focuses on the neverending processes of identity exploration and boundary crossing in SoTL. Both chapters are written by groups of experienced SoTL scholars who've also worked and written together for years. Each chapter reminds readers that, even when they are accustomed to "being a SoTL scholar," they're still becoming in many ways. The first chapter features six SoTL scholars who describe their ongoing scholarship as "working against the grain" of their institutions, and the next chronicles three long-time SoTL colleagues of varied disciplinary backgrounds who were surprised to still encounter difficulties, miscommunications, and misunderstandings when writing together on their latest project.

In the opening chapter in this section and the penultimate chapter of the book, "The Importance of Autonomy and Community for SoTL Engagement," Andrea Webb, Barbara Kensington-Miller, Ann Gansemer-Topf, Heather Lewis, Geneviève Maheux-Pelletier, and Analise Hofmann explore SoTL identity development among the members of their long-term, international SoTL writing group. Using the methodology of narrative inquiry, they examine their different roles as "third space professionals" and the dispositions, transitions, and tensions they have experienced as SoTL scholars and as collaborators.



Finally, in the reflective essay entitled "Navigating Boundary Experiences in SoTL: Pinch Points, Paradigms, and Perspectives," Janice Miller-Young, Michelle Yeo, and Karen Manarin share some of the challenges they experienced working together on an interdisciplinary SoTL research methods book. Despite years of collaborating with each other, they characterize the definitional work of writing the book as a "boundary experience," an extended period of deep engagement, negotiation, and even compromise with each other, requiring open-mindedness, trust, and a shared vision for success.

Ultimately, this final section reinforces the previous chapters' revelations that embracing openness, challenging the status quo, tolerating ambiguity, practicing empathy, engaging intellectually, and continually evolving one's identity are all essential qualities for being a SoTL scholar, regardless of where one stands in their career trajectory. Collectively, the authors in this book demonstrate the dynamic nature of identity, an ongoing process informed by extended exposure to a variety of influences, followed by deliberate reflection. The groups of authors of this section emphasize this by chronicling their enduring collaborations with colleagues with whom they have close and trusting relationships—relationships that are qualitatively different than those described in section 3. These collaborative relationships keep these scholars in a perpetual state of becoming, learning, and self-examination as individuals and as groups. For them, identity change has become the norm rather than a liminal state, even though this occasionally still surprises them.



### CHAPTER 16

# THE IMPORTANCE OF AUTONOMY AND COMMUNITY FOR SOTL ENGAGEMENT

How Six Scholars Embraced Change to Assert Their SoTL Values and Identity

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In the past decade, much of the research has focused on the understanding of what it means to be a SoTL researcher and the challenges of conducting SoTL in postsecondary institutions (Bass 2020) that tend to value traditional disciplinary research. While much of the literature speaks to "doing SoTL scholarship" (Felten 2013), less focus is on the researchers themselves: "being" a SoTL scholar. A case in point: we are six women scholars from different disciplines, institutions, countries, and academic levels and roles, as demonstrated in table 16.1 later in the Research Design section.

Our collaboration began in 2019. Similar to Miller-Young, Yeo, and Manarin in chapter 17, we have grappled with the concept of identity formation and lived tensions within SoTL and the sense of belonging generally within institutions; both are well documented (Castelló et al. 2021). However, for SoTL scholars, identity is often ambiguous or uncertain, sometimes described as being betwixt and between in a liminal space, leading to feelings of exclusion or being caught at the margins. These experiences create tensions between

our identities as disciplinary scholars and SoTL scholars. (Kensing-ton-Miller et al. 2015; Simmons et al. 2013; Webb and Welsh 2021).

In this chapter, we ask: how do we respond to tensions in academia as SoTL scholars? How we navigate these tensions as we shape our identities as SoTL scholars and brokers is important for sustaining all our work within SoTL. The tensions we experience include competing norms in an academic system that imposes a set of values that are not completely ours. Tensions also arise when the status quo is disrupted, when we work outside predefined identities and portfolios. They also come from having to play within the rules if, or for as long as, we choose to stay in academia. At times, we are stuck maintaining the same structures we are constrained by: "Another manifestation of the power of disciplines to legitimize particular types of scholarship is the need for scholars to engage in two tracts of publishing-one to make the individual happy and one to make the institution happy" (Godbold et al. 2021, 387). Yet, we have overcome this disconnection, by forming a community through which we can articulate and uphold our shared values. These values include "a commitment to make a difference in the lives of students regardless of our role definition, a belief that SoTL is essential and valuable, a willingness to challenge boundaries between research and teaching, between different identities and between disciplines" (Godbold et al. 2021, 388).

We aim to demonstrate how we have used these tensions productively. In this way, we bring an empirical lens to Manarin and Abrahamson's call for embracing SoTL as "the vehicle for transition, inquiry, and growth, working between disciplines and sharing a common practice" (2016, 1). Through these tensions, we demonstrate how we have learned and become active change agents, "elevat[ing] and complicat[ing] the role that inquiry into teaching and learning might play in institutional change and the expansion of higher education." (Bass 2020, 3)

### **Our Research Trajectory**

Our group first published research on brokers who facilitate SoTL across institutional and disciplinary boundaries (Kensington-Miller et al. 2021, 2022) and how they often play at the margins of disciplinary cultures (Kubiack et al. 2015). We argued that brokers understand the diversity evident in SoTL work (Booth and Woollacott 2018) and develop the ability to speak the languages of many disciplines within the SoTL context. As a result, brokers have an understanding of disciplinary cultures, but are not tied to a traditional territory or discipline (Chng, Leibowitz, and Mårtensson 2020). Yet, our research on brokers, as different from traditional academics, did not address the ways that brokers respond to the tensions that arise within institutional contexts because of this difference and how we learn from these tensions as we shape our identities as SoTL scholars and brokers.

What we realized was that in some instances, brokering was most successful when it went against the grain of institutional culture as it bridged different significant networks. We then considered the dynamic structures and levels of assistance necessary to support SoTL within our institutions as we attempted to make sense of our diverse experiences and institutional contexts (Kensington-Miller et al. 2021). We now take our collaborative research a step further by examining what we learned about the tensions that emerged from working against the grain and how we applied this learning to our ways of working as SoTL scholars. We examine how we respond to tensions in academia emanating from the differences between traditional educational structures and cultures and the more flexible, fluid, and collaborative culture and structures inherent in SoTL work (Campbell-Perry 2022; Leibowitz and Bozalek 2018; Chng, Leibowitz and Mårtensson 2020). While our work as SoTL scholars is context-driven, we attempt to capture our common agentic responses to the academic tensions experienced by many SoTL scholars across different institutional contexts and levels of SoTL experience. By acknowledging and defining these responses, we hope to stimulate further theoretical and practice-based discourse

not only about the tensions emerging from difference and liminality but also about SoTL practitioners' ways of working with such tensions.

# **Theoretical Framework**

This chapter builds on decade-long research about the nature of the third space or marginal spaces in academia (Whitchurch 2013; Veles, Carter, and Boon 2019), and how "blended professionals identify with an ever fluid context within academia" (McIntosh and Nutt 2022, 6). The following theoretical and conceptual framework considers some of the most recent theory and research in this critical field of inquiry which continues to evolve as SoTL and other forms of integrated practice contribute to the formation of alternative ways of being and ways of knowing within traditional academic contexts. In addition, this book's other chapters offer an extensive review on identity construction within the field of SoTL which we have drawn on to inform our theoretical framework and discuss briefly below. Our theoretical framework helps expand upon, and complicates, one of Felten's principles of good practice in SoTL; good practice is "grounded in context" (Felten 2013).

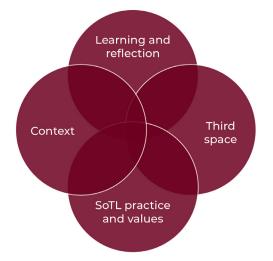


Figure 16.1. The ever-fluid context of SoTL within the academy

### **Identity Construction**

Disciplinary and interdisciplinary identity construction, as part of SoTL work within academia (Simmons et al. 2013; Kensington-Miller, Renc-Roe, Morón-García 2015; Webb 2016), includes the relationship of transdisciplinary and collaborative SoTL practices within traditional institutional contexts (Manarin and Abrahamson 2016; Miller-Young, Yeo, and Manarin 2018; Godbold et al. 2021; Huijser et al. 2021; Lee et al. 2022). A new SoTL identity is often challenging because the demands of the academy often conflict with academic values. Manarin and Abrahamson discuss the tensions that SoTL scholars contend with as they navigate competing values in academia. These tensions lead to "troublesome spaces," which can be "both enabling and disabling" (2016, 1).

In this chapter, we suggest that as SoTL scholars, we sometimes adapt to academic expectations and cultural norms, but because of the troublesome knowledge or contradictions we experience as SoTL scholars, we chart new pathways for colleagues and ourselves. We suggest that being different, and learning from our differences, helps us as SoTL scholars and brokers to navigate tensions within our academic contexts and address "relations of power" (Beech et al. 2021, 396).

### **Third Space Professionals**

In their work on integrated practitioners who work within third spaces in academic contexts, McIntosh and Nutt (2022) discuss the "uncomfortable tension between recognized and contested identities in the academy" (5). Although McIntosh and Nutt recognize that there is a healthy debate about the definition of third space professionals, they summarize particular definitions that are similar to the descriptions of SoTL practitioners and are consistent with our findings from this study. For example, they cite Veles, Carter, and Boon (2019) who argue that third space professionals are often "complex, collaboration champions, working cross-institutionally, often in a thematic way, and operating outside their predefined work portfolios on various collaborative projects" (4).

Yet, despite this collaborative work, Ackerman (2022) suggests that there is a degree of invisibility within institutions and a sense of imposter syndrome among those in the third space workforce. Ackerman examines how third space professionals respond to invisibility and imposter syndrome in third space work by becoming "positive disruptors" which, she argues, institutions should nurture to bridge barriers and boundaries across roles and structures in higher education.

Through the analysis of our narrative research, we discovered we shared commonalities in the ways we addressed tensions within academic contexts as SoTL scholars but also recognized that these commonalities were not static and would continue to change in the future.

### **Research Design**

The purpose of our study was to examine how we respond to tensions in academia as SoTL scholars. Our aim was to learn from these tensions, recognising that how they shape our identities as SoTL scholars and brokers is important for sustaining our work within SoTL. We begin with the profiles of our group, synthesized in table 16.1.

### Methodology

Our empirical research was guided by narrative inquiry and analysis. This approach to research, which prioritizes stories of experiences, was a valuable lens in which to understand SoTL scholars' experiences of becoming and being SoTL scholars. As an approach to SoTL research, stories share events, but also convey emotion, tell parallel stories, and represent knowledge differently. Through the individual story, researchers can explore how institutional and societal cultures are at play and how the participant constructs their identity as an individual embedded within the culture. The common form of narrative inquiry includes biography and autobiography, frequently shared in interviews (Fontana and Frey 1998).

Narratives are a valuable data source as they have the potential to validate the experience of ordinary people, especially ordinary

Author	Country	Current Role	Previous Roles	Disciplinary Background	Years of SoTL Engagement
Analise	Canada	PhD candidate Sessional instructor	Teaching assistant	Cell biology and genetics, data science	Q
Andrea	Canada	Associate professor of teaching, education	Secondary school teacher	Teacher education	13
Ann	SU	Professor, higher education and student affairs	Student affäirs Institutional researcher/ Enrollment management	Higher education	ſ
Barbara	New Zealand	Associate professor, education and social work	Academic developer Secondary school teacher	Mathematics and biochemistry	12
Geneviève	Canada	Director, teaching and learning centre	Professor Educational developer	Applied linguistics	6
Heather	SU	Professor, art and design education	Community organization leader	History	×

Table 16.1. Profile of the authors, as of 2020–2023

women who are liable to be omitted from many research projects (Coates 1996; Fraser 2004; Reinharz 1992; Riessman 1987). The stories are composed and received in "interactional, historical, institutional, and discursive" contexts (Riessman 2008, 105); therefore both the speaker and researcher are active investigators who bring meaning to the text (Burr 1995; Riessman 2008; Sparkes and Smith 2008).

In our research interviews, a conversational, transactional partnership is developed between the interviewer and the interviewee as they construct knowledge (Koro-Ljungberg 2008; Miller and Crabtree 1999; Rubin and Rubin 2005). The interview is not mining the experience of an interviewee, but temporarily constructing a shared discourse amongst diverse professionals.

Our methodology includes a purposeful sample of SoTL scholars, multiple methods of data collection, and an analytical approach that views interpretation as a dynamic process between the individuals and the group, emphasizing the co-construction of knowledge between researchers and participants (Frechette et al. 2020).

#### Methods and Analysis

As recommended by Frechette et al. (2020), we adopted multiple methods of data collection: 200-word autobiographies written at two points in time, responses to the autobiographies, and semi-structured group interviews. Written in 2019, our first autobiographies documented our journeys to involvement in SoTL. Our second autobiographies, written two years later, focused on tensions we experienced as SoTL scholars. Our analyses of the autobiographies were used to generate the interview protocol. During Zoom group interviews, we focused on "interviewee-oriented" (Fraser 2004, 185) conversation in order to avoid mining for information or cross-examining (Kvale 2006). Following the interview, each group member transcribed their own interview as a way of locating ourselves within the transcript (Lapadat and Lindsay 1999), incorporating reflexivity (Hobson 1996), and member-checking the content. Thematic analysis offered an accessible and flexible approach to analyzing the qualitative data (Braun and Clark 2006; Fereday and Muir-Cochrane 2006). Interacting with the data involved thematic coding through a seven-stage process (Fraser 2004). First, the transcripts were read, multiple times, and we generated initial codes. During the weekly meetings, the codes were discussed and collated into potential categories. This was repeated with the annotated autobiographies, which reinforced the emerging categories. We continued to check if the categories worked in relation to the coded extracts and the entire data set.

Ongoing analysis and discussion supported a refinement of the specifics of each theme, and the overall story the analysis tells. The credibility of this research is demonstrated through evidence (i.e., use of the participants' words or quotations from transcripts), as detailed substantiation from participants provides an insider's view (Charmaz and Mitchell 2001). The reliability of the interview data is also supported by the sincerity of the research. Through transparency in ethics, transcription, and data interpretation (Tracy 2010, 842–43), this project sincerely reflects the co-construction of knowledge through the constructionist interview. Finally, we produced a report of the data, including a selection of vivid, compelling extract examples.

# Findings

In addressing our research question about how we respond to tensions in academia as SoTL scholars, we identified four main areas—accepting autonomy; finding community; embracing change; aligning our values—where tensions emerged across all our narratives. Here, we contribute snippets from our narratives that demonstrate how our various positionings were experienced and made sense of as we responded to the lived tensions that shaped our identities as SoTL scholars and leaders.

#### Accepting Autonomy

SoTL scholars often feel a sense of isolation and lack of community within their institutions. Although viewing themselves as boundary crossers (Kubiak et al. 2015), they often feel like they do not completely identify with any one discipline. Many of us described this feeling as: "*being an outsider in their disciplinary culture*" or engaging in "*other scholarship*." Although our group members mentioned a limited or absent connection with our disciplinary home as somewhat unsettling, we also recognized its benefits. Freedom from the constraints of disciplinary expectations afforded a sense of autonomy. Our group members were able to (re)create scholarship and identity on their own terms. One participant discussed how the sense of autonomy empowered her to "*grow into a confident scholar*." Another participant described it in this way,

I also get left alone. . . . As long as I do my teaching and my teaching is good, nobody really cares what I'm doing with the rest of my time, so that frees me up to do a project with the faculty pharmaceutical sciences, or with somebody in engineering or with a colleague in Scotland.

Free from having to conform with expectations related to a specific discipline or culture, SoTL scholars can define their identity on their own terms:

It is challenging but also if we embrace it, if we get messy with it, and we sort of relish the fact that we're non joiners, then it can be a really interesting place to be because you can kind of slither in between people's expectations.

Several other group members noted that a sense of autonomy caused them to rethink who they were or wanted to be. As one participant mentioned,

SoTL and DBER [discipline-based educational research] allowed me to engage in self-reflection around my own education and training. And ultimately to question the status quo of my own training and evaluate what was missing, why, and how I might be able to address certain issues. One's level of autonomy can depend upon career choices, but agency is only activated when we are comfortable defining ourselves professionally:

Many of you are in a position where you are safe enough to be able to push back and say, "Well, says who?" Right? As for me, I'm no longer in that particular uncomfortable spot because I removed myself from it and I chose a different path. My path was not an easy one to follow because I first embraced the traditional academic path, then I rejected it.

Autonomy as productive tension affords opportunities to rethink traditional definitions of disciplines, roles, scholarship, teaching, and learning. Yet, this uncomfortable positioning necessarily meant that we looked for community elsewhere.

#### **Finding Community**

Although none of us has "SoTL" as an official title or department, each of us engages in SoTL from our own unique disciplines and positions. This sense of "otherness" within our own institutions was both common and obvious. As a result, we all sought out other communities in which to engage, often outside our home institutions. Many of us reflected on attending SoTL conferences and "*finding a home*," "*finding my people*," or "*being part of a family*." Many of us found developing community outside the institution much easier in part because it can flatten an otherwise hierarchical landscape:

*I do find it's actually easier to work outside the institution* . . . because it just seems to be so many different hierarchical structures and people are title sensitive and they care about this discipline over this discipline.

We appreciated the "sense of belonging, the inclusiveness as well as the differences in our positions, our faculties, our universities, our countries" that being part of heterogeneous groups afforded us.

Our experiences finding a community of SoTL scholars within our institutions varied. For some of us, SoTL work is encouraged and recognized as a valued form of scholarship. When "*the ethos [at the institution] is to reach out and collaborate with people*," this contributes to a sense of a community within SoTL inside one's institution. In other cases, relationships within the institution felt fraught or at least initially awkward:

Although outwardly I am welcomed, I am an intruder. I feel like the "new kid on the block" trying to fit in, wrestling with who I am and how my identity as a SoTL scholar can be productive here. I am slowly building relationships, trust, and their confidence in me...

Yet, no matter the stage of our careers, we all felt we needed to go outside of our discipline to find a community that supported our values:

I find that the people associated with DBER care a lot more about the people that they work with, like their students or their colleagues....Just talking to them gets you out of your bubble, like to share a little bit and then there's like commonalities and differences....Community is big.

In other words, finding community within the institution often means finding appreciative colleagues wherever they might be:

I really don't feel like I belong in my faculty as an inward facing member. . . . [I like the] idea of taking what I have and facing out from the faculty of education to other parts of the institution.

Many of us sought out opportunities to proactively and intentionally create community. One mentioned she didn't "*know how you do SoTL without collaborating*" while another one explained that she leveraged her influence to mobilize decision makers in creating formal teaching and learning support at her institution: "*I organized faculty and chairs to push for a teaching and learning center.*"

We noted that SoTL work was the sphere where our ideas and work were valued: "Maybe in academia you just need a place, even if it's not the exact place you intended for you to be in, you just need somewhere that you're getting support." Creating communities was a powerful response to the tensions we felt in other areas of academia where traditional disciplines were granted more power or prestige over pedagogical knowledge. Collaborating with disciplinary experts can elevate the value of SoTL:

In many cases I'm working with people in chemistry or engineering, who have no background in curriculum and pedagogy, and yet are educators. Right?? It's a unique body of knowledge ... which is applicable everywhere on campus.

As SoTL brokers, we also build community by valuing others who engage in SoTL and validate the work that they do:

So [SoTL] really gives me language to explain to folks that what they're doing is a valuable scholarly approach to their teaching. [A professor] said, "I really hate the very notion of publishing research. This is not why I'm here." And we are able to validate her and say. "That's great that you just want to know for yourself and your students what works."

Finding or creating a SoTL community and spearheading collaborations are ways of navigating the challenges of being an outsider and lacking authority in some academic contexts. As a group, we understood that, in higher education, a collaborative stance towards research often does not yield much traditional recognition, but it brings value nonetheless. One of us humorously characterized it this way: "I haven't had a title at the university. Can you imagine having a title like Director of Collaboration?"

### **Embracing Change**

Across our narratives, one pattern was abundantly clear: our individual journeys towards and within SoTL have been punctuated by changing roles and non-traditional career paths, compared to the typical tenure-track academic. At times, our unconventional identities caused tension through misunderstandings and confusion for our colleagues, such as "*you're going against the norm, and you have* 

to justify why." This was akin to the imposter syndrome that some of us experienced: "At first I felt like a fraud, that I had nothing to offer coming from a STEM background, but the leader of our [writing] group worked with our diversity." Eventually, a reframing of who we are takes place: "Saying I'm a SoTL researcher always brought confusion about what it is, so it is easier to say I'm a social scientist who does SoTL research." While a member of our group put it simply: "I call myself a scholar, sometimes a SoTL scholar, but it depends on the audience I guess," another one drew connections between her SoTL research and the other work she receives recognition for:

I am a higher education scholar, and a part of higher education is teaching and learning, therefore part of higher education is SoTL—so for me it's not a tension it's part of who I am because that should be what higher ed is about now.

These examples of reframing are attempts to translate who we are as scholars in terms that are more widely understood by other colleagues: "That's a lovely place to situate yourself." But it remains nonetheless a clear affirmation of our positioning as well as our relationships with others:

*I* don't think my identity as a SoTL researcher has changed it's my identity of fitting into a new group of people, and how I work with those people. There's a huge tension there but it doesn't change who I am.

It becomes productive when the change we have seen in ourselves gives way to change in our broader context: "*It doesn't matter if my heart is not convinced 100%, I'm going to do it. Then you convince the people around you.*" Owning this process of adaptation within ourselves leads to broader, system-level change, albeit small and incremental, as demonstrated in the following conversation about making change:

Member 1: Even though you're saying "I chart my own path," it's not just your own individual path you're actually changing to make change in the institution. You're working with those colleagues to support them to grow as people and as scholars. But it's also going to affect the institution, you know, you're a change agent.

Unconvinced, member 2 replied: "*I'm doing it so that I can model for somebody else that these things are possible, but I'm not sure it ever gets seen to be totally honest.*" Unyielding, member 1 explained it in a way to convince all of us:

I understand it's not a whole department, but you're working with those other people in those other departments to make change. They're changing their teaching, they're changing their scholarship, and we're changing their identity.

As we navigate different boundaries and adapt, changing our own identities and influencing others, we realize that change is a natural process that leads to more reframing of our own thinking and actions:

If SoTL transcends student learning, if it has goals and aims that go beyond that, and if it helps thinking through one's teaching and what their aspirations about teaching might be and how they might realize this through SoTL, it becomes this big, less defined thing. And then, the boundaries are no longer so clear; we go in all sorts of directions depending on why it is that we're doing SoTL.

A broad understanding of the scope and possibilities afforded by SoTL work gives us freedom to explore, adapt, and cross boundaries once imposed upon us: "*I'm going to go there and I'm going to make my little networks and make myself useful to people. I'm going over here, because, at least, I come in peace. I come with something to offer.*"

As a new sense of belonging develops, new relationships also emerge and further reinforce our identity as SoTL practitioners: "*I met other people who talked and breathed SoTL and I knew I had found my research 'home.' Being a SoTL researcher made sense.*" Once a new sense of community is born, further change takes place within us. Thus, tension becomes productive, as we are able to channel our difference to adapt, make new connections, and lean on others to continue to grow:

I really like working with other people because they bring [SoTL] stuff that I don't know, and so it's one way of learning. When you're working with people that are actually doing different stuff and have different voices about or different angles that they come from, I really get energy on that.

Change means that we have to have some comfort with new responsibilities, people, and ideas. Drawing on a wider community and personal autonomy, we were able to navigate the tensions in SoTL scholarship by being open to change.

### **Aligning Our Values**

Aligning personal and professional values is part of our response to the tensions we experience as SoTL scholars. This is harder when we do not have others doing SoTL work to identify with, or when our faculty or department does not support or value SoTL scholarship. When disciplinary identity is the only kind valued and the dominant discourse, having a SoTL identity as well as the disciplinary research identity brings tension to give the former away as it is considered less or not important.

In describing our SoTL identity, we used a number of different metaphors suggesting a sense of deception (*trickster, chameleon, Trojan horse*) in order to subvert the hegemony that seeks to oppress and marginalize us. One member described the challenge that she has "all these hats on," while another described "identity as a prism. And I think that that's kind of interesting for all of us as we think about our SoTL identity as just being one facet, and I now understand that my SoTL identity is multi-faceted. I can now make connections across multiple initiatives I am involved in." To be true to our values, we looked at ways to develop acceptance and credibility and being in SoTL through our actions: "I see myself as a scholar of teaching and learning and so therefore I have to get myself in the door, and then subvert through my actions." We adapt to the requirements of our positions in order to develop acceptance and credibility, while anchoring all of our work in the same teaching and learning concepts. For example, one member noted that, regardless of the course or research they are engaged in, they were able to apply the same SoTL concepts: *"There are conceptual threads that run through everything I do, but how I apply those things is different."* 

A SoTL identity is often tied up with being part of a team or a collaboration, having similar values, rather than by oneself: "It's talking to your colleagues; it's like helping this person, and so in a way you're a scholar that's like helping disseminate information but you're probably strategically disseminating information and then building community." It is having "other people who talked and breathed SoTL" despite geographic location, disciplinary background, and academic position. Embracing the "values of collaboration" and the learning that comes from these collaborations were opportunities to align our personal and professional values:

Maintaining my beliefs about what makes sound SoTL research and my self-identification as a SoTL leader who values 1) collaboration 2) the absence of hierarchical power relationships 3) accountable to those I am working with and 4) supportive and resourceful, despite institutional forces with different values.

As SoTL scholars, part of our values in collaborating is to support others doing SoTL: "If there is only one person like me at my institution who's doing this kind of stuff and sees themselves as a scholar of teaching and learning who's willing to work with others, then I have to do it, and I do it." These are "the people that care deeply about teaching and the institution," and we had "amazing conversations about what we thought was important, what we valued, why we thought it was important."

Our values meant we "committed time and energy to making sure that others published and they did. I realized that's what I want to do, I want to help faculty publish their SoTL research. . . . I'll put in whatever it takes to help you." One of us used a vivid metaphor to explain non-competitive collaboration as a core value in her SoTL work: "I equated [doing SoTL] to when I played volleyball. I always was the setter. I didn't spike, so my goal was to get it set up so someone could spike it."

Aligning our personal values, a belief in the benefits of SoTL, with our professional actions "*has enabled me to grow into a confident scholar, who can tackle wicked problems rather than trying to frame learning (narrowly) as an action verb.*" A SoTL identity relieves the tension between a recognized academic identity and personal values of work in higher education:

I realized that my "official" title at the time—professor and chair of a department—was not my identity. It was part of it, but there were so many other strands that were not recognized through titles or even compensation... I came to these realizations slowly and throughout wrestled with my identity as a SoTL scholar.

This is not an easy recognition, and many institutional structures (appointment, promotion, tenure, etc.) may hinder this alignment of personal and professional values. Thus, the tension between fulfilling professional responsibilities and aligning our scholarship with our personal values leads many SoTL scholars to intersectional identities.

## **Discussion and Conclusion**

Our intention, in this chapter, is to explore how we, as SoTL scholars, respond to tensions in academia. As our findings have shown, the themes of accepting autonomy, finding community, embracing change, and aligning values underpin our identities and actions as scholars, colleagues, and mentors. Much of the change we encourage in SoTL is driven by autonomous decisions and desires to make academia a more collaborative place for us and others. This drive for change can be classified under four general headings: navigating the academic hierarchies and spaces in ways that work for us; a personal disposition where we don't accept the status quo and look for ways to use SoTL to align our values with academia; actions we take to make change for ourselves and for others (often through collaboration); and strong reasons that drive us to change

how we engage in academia where we recognize the value of SoTL in our journeys.

SoTL has provided space to allow for work that requires lots of time to change the academic system. Often the journey and identity development as SoTL scholars starts by changing how we relate to academia—allowing us to find community, collaborators, mentors, and ultimately a sense of belonging. Building on this, we are then able to engage in professional development to improve our teaching, help our peers improve theirs, and ultimately improve the academic learning environments for faculty, staff, and students. The SoTL path is still a relatively new path, however, and we each navigate the path in the way that allows us to engage in work that we value and that has potential to benefit many others.

Our narrative inquiry work of the last four years has led us to take stock of an important shift in ourselves: as SoTL scholars, we have been empowered to use these tensions to our advantage, to shape and re-shape our SoTL identity as we learn and enact change within the academy (Beech et al. 2021). We acknowledge that there will continue to be tension in doing SoTL work within traditional definitions of disciplines, scholarship, teaching, and learning (Bennett et al. 2016; Webb and Welsh 2021), but our findings demonstrate how we use these tensions productively, having "step[ped] into a new way of knowing where the troublesomeness dissolves" (Manarin and Abrahamson 2016, 1). Now is the time to turn the notion of troublesome knowledge of SoTL on its head.

Despite our different contexts and roles, we found commonalities in our SoTL identities through our autonomy, community and collaboration, and the way we respond to change and our values. As SoTL scholars, we seek and embrace change within academia. Inevitably, tension arises when the status quo is disrupted, and such tension triggers more changes either within self, the communities we choose to participate in, and/or the institution. However, as we broker these diverse academic and disciplinary boundaries, we approach change incrementally, as well as productively, where our expertise adds value. Rather than experiencing the tensions that serve to work against us and shut us down as barriers, we found instead that they could open a productive space to shape our identities as SoTL scholars. Beech et al. (2021) suggest that we are motivated to engage with others when our identity is developing and we are confronted with differences. This takes the form of community, both within and across our institutions. Through a degree of autonomy, we are able to forge our own way within our departments and our institutions, and be intentional in selecting our communities.

Disciplinary communities are well established but because SoTL does not have the same normative crystallization, we have to be intentional in finding other SoTL scholars with similar values to connect with. SoTL space is less defined (or nebulous) with fewer hierarchies, and it is more common to work with groups outside our disciplinary home. The SoTL sphere has become a space to learn, grow, and develop our identities as SoTL scholars, often away from the traditional conventions and hierarchies. Mariaye, Murden-Louise, and Ramasawmy (2023) document how pairing informal and formal spaces for conversations around teaching results in professional growth of both experienced and novice SoTL scholars. SoTL has provided an avenue for self-reflection and to question the status quo. Ackerman (2022) describes this as the way that third space professionals, such as SoTL scholars, respond to invisibility and imposter syndrome in third space work by becoming positive disruptors. We have been able to turn our invisibility into a superpower; we are able to fly under the radar and to work freely across disciplines, with scholars of our choice. This has meant that we are learning to measure our academic worth and develop our academic identity; we do this internally rather than by the measures the institution imposes. Through autonomy, each of us has developed and expressed a strong sense of personal self as a SoTL scholar and a commitment to a purpose.

Our sense of "otherness" drew us to new communities where we felt we fitted in, whether within third spaces, within our institutions, outside our institution, outside our discipline, or at SoTL conferences and writing groups. In these communities, we found we were valued as newcomers as well as for our expertise. By changing our roles, and for some our career paths, we reframe what we do to fit in with the conventional. SoTL scholarship has given us freedom to explore and adapt, create new connections, lean on others while continuing to grow. New relationships continue to shape our SoTL identities. We draw strength from this process, modelling for others coming through the SoTL journey how we learn from being different as we adjust to tensions in academia. We often use deceptive metaphors to describe our SoTL scholarship. Nevertheless, we also invert these terms as we adopt an identity as a positive disruptor (Ackerman 2022), based on a series of actions: first developing acceptance and credibility in the disciplines and then, like pulling a rabbit out of a hat, we bring in our SoTL work. We wear different hats as necessary. We are team players, moving around to different positions such as those in a volleyball team, being supportive and resourceful of those doing SoTL and validating them despite institutional forces with different values. We are SoTL leaders who value and broker new collaborations where there is the absence of hierarchical power relationships, and members are accountable to those they work with.

Our work provides a theoretical understanding of how identity develops. It offers another perspective in bringing SoTL research to a more productive place, a place where they can learn to occupy the SoTL space that is often troublesome and full of tensions. While we recognize the limitations of working within a small group of six, we hope that our different contexts contribute to understanding how we shape and develop our SoTL identity as we respond to the lived tensions of our work in academia.

## **Reflection Questions**

Questions for emergent SoTL scholars:

- What type of community could help you thrive within SoTL, and what can you do to find or create it?
- What do you value most in your SoTL work? How do these values align with your professional identity/identities?

Questions for established SoTL scholars and brokers:

- In your leadership role, formal or informal, how can you foster the autonomy and the legitimacy of your SoTL colleagues?
- How can you help create a sense of community for those who engage, or wish to engage, in SoTL in your context?

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### CHAPTER 17

# NAVIGATING BOUNDARY EXPERIENCES IN SOTL

## Pinch Points, Paradigms, and Perspectives

Janice Miller-Young, University of Alberta, Canada Michelle Yeo, Mount Royal University, Canada Karen Manarin, Mount Royal University, Canada

The introduction of this chapter might go something like the beginning of a joke: "An educational researcher, engineer, and humanities prof walk into a bar. . . ." Except instead of a bar, the three authors of this chapter walked into a SoTL development program more than thirteen years ago, and have collaborated on various SoTL projects and initiatives ever since. We began to work together in 2009, when Karen (humanities) and Janice (engineering) both applied to Mount Royal University's SoTL Scholars program, for support in developing and conducting a SoTL research project. As an engineer teaching small classes, Janice wanted to learn to do qualitative SoTL research. Karen, an English professor, wanted to study how students read. Michelle, an educational developer with a background in teacher education and qualitative research, was recruited to help facilitate the program. In its original form, the program did not provide any resources or training in research methodologies, their underlying philosophies, nor learning theory, but rather jumped straight from developing a research question to discussing methods, which made all three of us uncomfortable. Janice's strategy was to choose a well-structured method; she conducted a study using the think-aloud interview (Miller-Young 2013). Karen initially feared she would have to learn statistics to

do SoTL, and was uncomfortable treating text, whether generated through interviews or reflective writing, as truth; she muddled along, buying random methodology books. Eventually, she cobbled together a couple different methods that seemed to make sense to her and described why she did what she did, but really had no insight into the methodological underpinnings of her approach (Manarin 2012). Once we had completed our projects, the three of us also began working together to better understand and describe a spectrum of research methodologies for SoTL, for our own benefit and hopefully for the benefit of others. We continue to do so, and in this chapter we describe some of the recent challenges we had in co-authoring an interdisciplinary SoTL research methods book (Yeo, Miller-Young, and Manarin 2023).

We cannot emphasize enough what a difficult task this was. Even though we divided the book up into different sections for each of us to write, we met at least once a month to give each other feedback on our various sections, to co-develop the framing of the book in the introductory chapters, and to ensure the book was written with a single voice. Despite years of work together, we still found ourselves talking past each other around key concepts like methodology, interpretation, and use of theory, once we were forced to nail down definitions and align them with examples from across a broad range of disciplines and disciplinary approaches to research. We discovered that different disciplines, discourses, and methodological textbooks use terms much more variably than we had known (figure 17.1). At the point when we began to discuss our definitions of paradigm vs. methodology vs. epistemology vs. research design, we realized how much there was to sort out, and we began to record our monthly Zoom meetings in order to capture these rich discussions in which we were becoming more aware of our different ontological and epistemological understandings of our own and each other's disciplines.

In what follows, we each reflect on what we saw as an underlying challenge or pinch point—something that caused frustration and tension while writing the book. We then reflect together on

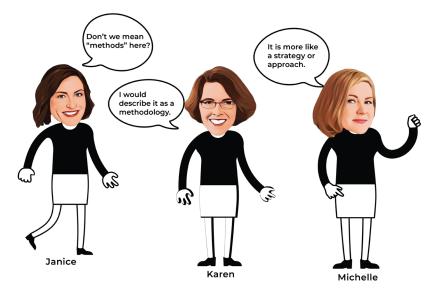


Figure 17.1. Direct quotes from our discussions of content analysis and thematic analysis. From left to right: Janice (engineering), Karen (English), and Michelle (education).

what our experiences suggest about working in interdisciplinary spaces in SoTL. We hope that by exploring our experience others might see themselves, gain new insights, and perhaps challenge themselves in new directions.

# Looking Back Individually

## Karen:

I don't think our main difficulty was limited to specific terms or ideas, although I can think of a whole list of words and ideas that tripped us up as we were writing the book—empirical, methodology, observation, method, theory, design, interpretation, and so on. We would try to state and restate our understanding of these terms as clearly as we could and then be frustrated when the others still didn't understand the way we wanted them to because of their own disciplinary assumptions about those terms. I think the issue was deeper than that. I think it has to do with how we expect language to function. But that, of course, is part of my disciplinary bias right there.

For example, Janice really wanted to nail down specific terms and then to only use them in specific ways—which I think makes sense from an engineering perspective. It doesn't make a lot of sense from a humanities perspective, where the meaning of a word will necessarily be shaped by the context of surrounding words and the audiences that read it. One of the main challenges we faced was how broad this audience could potentially be because of how broad SoTL can be. How can an engineer, an English scholar, and an education scholar share the same understanding of a word when we have competing visions of how language works? And how can we share this understanding with such a broad audience?

This struggle played out, not just on a conceptual level, but also in the stylistic and organizational choices we made for the book. I wanted to embed definitions within sentences, and I wasn't really worried if our definitions changed as we described the different methodologies in different chapters because those practitioners of those methodologies approach the terms differently. Janice wanted a glossary that people could refer to when they encountered a term they were unsure of; she also wanted to italicize terms to indicate that they showed up in the glossary at the end. I wound up with sentences with almost all the words italicized—it looked like someone's excitable great-aunt was writing. We tried italicizing first uses of words, but again the italics were overwhelming, particularly early on in the book. So we wound up with embedded definitions to provide more nuance, a glossary at the end for a more general (I still worry too general) definition, and no italics. So it was a compromise of sorts that I hope people find useful.

Similarly, and with her own disciplinary preferences, Janice really wanted the diagrams to be rich and meaningful, and wanted us all to collaborate on them, but I find it very difficult to think in those terms. When reading something, I typically don't spend much time on diagrams, so I don't know how to make them useful for others. I know that was a frustration for Janice. I think spending some time early on talking about how we expect language to work and how we believed we should make distinctions between things would have been useful. Instead we just sort of struggled along, having the same sort of argument time and again.

### Janice:

The difficulty that stands out in my mind most was my colleagues' association of quantitative research with post-positivism. This was a term that was unfamiliar to me not too long ago, so at first I was relying on Michelle's description of the philosophical foundations of different research paradigms because she had some knowledge in this as part of her training as a qualitative educational researcher. But I found her descriptions of the postpositivist paradigm far too simplistic compared to how I thought about my own discipline and compared to what I had come to understand as a (realist) social scientist's approach to research. She used descriptions such as "there is a conception of a real world which can be objectively known," "the researcher tries to be impartial and objective," and the researcher seeks "universal truths" and "generalizable findings." To illustrate, she used examples which associated quantitative research with laboratory experiments using controlled and manipulated variables. To me, this described only one type of quantitative research based on linear assumptions of cause and effect between variables, while in some areas of STEM, as Matthew Fisher describes in chapter 7, researchers take a more complex, systems view where the properties of a whole cannot be studied by breaking it down into independent parts.

It felt like my qualitative colleagues were telling me I was a postpositivist when I didn't think I was, at least not when it comes to SoTL. To make sense of it all, I dove into the philosophies of science literature, and I also tried to compare various descriptions and definitions of research paradigms to how I understood research in my own field. In my home disciplines, mechanical engineering and biomechanics, we need to deal with a high level of complexity, and we are quite aware of the limitations of our research in terms of the accuracy of our measurements and the extent of generalizability of our findings. We make observations and take measurements of natural phenomena, typically for the purposes of developing and validating a model, and we have to choose which variables are most important for that model to meet its intended purpose. We don't seek generalizable findings; rather we are explicit about the contexts in which our research/models/measurements can be expected to be valid and useful, and we seek understanding of the underlying mechanisms that produce these phenomena. I see this as being quite parallel to aspects of research in the social sciences, where theories play a role in determining what variables, or constructs, researchers pay attention to, and these theories may be generalizable across certain contexts, while findings of a single study may not be.

STEM researchers tend not to be explicit about their research paradigm because it tends to be assumed and therefore we also don't tend to read or debate philosophies of knowledge. However, as I wrote the chapter on generating quantitative data, I became more and more aware of how many layers of assumptions one must make in order to choose a construct one is interested in studying, especially one related to teaching and learning, and turn that into a reliable and valid number for the purposes of research analysis. These assumptions, not to mention our choice of research questions and constructs, are absolutely influenced by our social and cultural contexts! I found the paradigm of Critical Realism which resonated most with my own world view, and we ended up including it in the book. As a result of the collaborative work and conversations we had during the writing of our book, I am even more convinced than ever before about the important roles of theory and philosophical reflection in research, and I am even less convinced that a researcher can be entirely impartial and objective. And I'm ok with that.

### Michelle:

For me, the main difficulty was something to do with how I understand the notion of "paradigm" to operate. What I understood to be the task of the book was to present a spectrum of possibilities for the SoTL researcher, and as an interpretive researcher, the

conceptualization of those paradigms is really important, as is making distinctions between them, not in absolute terms but as a tool to think with. I think of each paradigm like a kind of family tree, that involves everything from how the researcher understands the world and how it can be known, to what methods are appropriate to use, to what language is used to describe things, to how things should be written up. A term might be used one way in one paradigm and used differently in another, which is why I had so much difficulty defining terms once and for all.

For me there were two important turning points—one was working with Helen Kara's (2022) description of how theory operates in quantitative vs. qualitative research, which I think was critical to our discussions and eventual resolution (or at least compromise). The second was around the notion of "knowledge construction" and how Janice and I were meaning something different when we used that phrase.

I don't really think it's up to me or anyone else to define for someone else their paradigm, and I accept that all approaches have value depending on the context of the work. I also think that certain disciplines are associated with particular paradigms in a kind of general way, but not universally, either at a sub-discipline or individual level. Many of the "social sciences" represent the full continuum, including education. Those working outside of the dominant paradigm have to do a lot more explaining about where they're coming from.

As an interpretive researcher I have often felt on the defensive when it comes to journal submissions, where reviewers critique the level of subjectivity, ask about sample size, ask for our code book, ask whether the study can be generalized to other contexts, etc., etc. So while I appreciated Janice's more complete understanding of what the expectations are around generalizability and found that very illuminating, I have definitely been challenged on this point by others. And this is even for basic qualitative studies we've submitted. I've tended to shy away from doing truly interpretive work in the SoTL context, and I miss it. So in the end, I think that our difficulty wasn't only conceptual—I think that these issues touch on who we are as academics, and our commitments to and nuanced understandings of our own discipline. Fortunately I think we also shared a commitment to working through it and a fundamental respect and care for one another, which might not have happened in another team. I'm not sure there could have been an easy way to bypass the difficulties we encountered—in a way they were fundamental to the task we set out for ourselves. I think we just didn't expect it, and maybe we should have, and perhaps that would have been useful out of the gate. I think I was surprised at how different our perspectives were, and I'm not sure why I was surprised!

### Looking Back Together

As we look back at our individual reflections, we are struck by the different aspects we chose to focus on and how those items seem tied to our disciplinary identities: Karen was worried about representation, Janice about oversimplification, and Michelle about paradigms.

The pinch points were so diverse, we didn't even realize we were arguing at times, or rather we were stuck in the same (polite and caring) argument over and over as we talked past each other with each new trigger word/concept. As we met to talk about our reflections for this chapter, we were surprised that it had taken this long for us to uncover these issues, even though we have worked together for many years and have successfully collaborated in other multidisciplinary teams. We were also surprised by how we quickly fell back into these conversations and debates in writing this chapter, even though we had come to some sort of resolution for the purposes of the book. Clearly, the process of working towards understanding continues beyond the specific product. Looking at our individual reflections written for this chapter, certain threads stand out for us. Each of us fretted, in our own ways, about our disciplinary identity being challenged by people outside of that discipline. Each of us was concerned, not with subjectivity and objectivity themselves,

but with the valuing of subjectivity and objectivity and what that looked like in different contexts. Each of us was learning from the others and feeling profoundly uncomfortable during the learning process. For now, these have emerged as insights and complexities to mull over, rather than as themes we have qualitatively coded in a systematic way. Here again are disciplinary norms at work—is there value in our intersubjective exploration? We think so, but the tension emerges with an impulse to make a larger claim.

## **Boundary Experiences**

In reflecting on our experience, we find Wenger-Trayner and Wenger-Trayner's framework of a landscape of practice helpful (2014a). Building on Lave and Wenger's (1991) previous work on communities of practice, they conceptualize practice within professional occupations, and the learning and evolution of practice that occurs within them, as a social body of knowledge which develops across a "complex system of communities of practice and the boundaries between them" (Wenger-Trayner and Wenger-Trayner 2014a, 13). While learning within a profession is thought of as a journey from the periphery to full participation in a community or from outsider to insider, the landscape model emphasizes the value of cross-pollination made possible by journeys between communities. Over time, practitioners may move between communities, have membership in more than one community, and develop the capacity to contribute to knowledge and practice within one or more communities.

In landscapes of practice, boundaries are places of potential misunderstanding but also hold potential for new insights and innovations. Although this framework has been developed and applied in professional fields where there is typically a shared history of learning, and common goals, language, and cultural norms, the metaphor has potential to help us understand the multidisciplinary practice of SoTL. Rather than a trading zone where disciplines exchange knowledge, theory, and methods with each other (Huber and Morreale 2002), the boundaries within landscapes are seen as potential "learning assets" (Wenger-Trayner and Wenger-Trayner 2014b, 108), and personal learning is thought of as a journey through the landscape. Put another way, trading "tools" across disciplinary boundaries can be a transformative action (Lattuca 2002). Akkerman and Bakker (2011) posited that transformational learning processes start with the confrontation with a problem in a shared space that forces boundary crossers to reconsider their own practice and how it relates to another. This reflection may result in a change in the individual's practice, their community's practice, and even the creation of a new, in-between practice, depending on what the individuals do with their newfound knowledge. Janice explores this metaphor visually in chapter 13 of this book. Others have suggested that learning at interdisciplinary boundaries requires more than simply an exchange with others, but a sustained "boundary experience" (Clark et al. 2017, 255). For us, the experience of writing together on a single project for over a year, a project that was intended to have a multidisciplinary audience, is our sustained boundary experience. This contrasts with our previous work together, on several shorter projects with a narrower scope, where dividing up the labour had allowed us to elide differences.

The framework of landscapes of practice fits well with elements of our own experiences of SoTL. In our collaborative work together we have each experienced a liminal space with SoTL as "the vehicle for transition, inquiry, and growth" (Manarin and Abrahamson 2016, 1). The process of writing required us to engage more deeply with each other's practices, but also required reciprocity, the trust to engage in a project in which we were interdependent, and the shared belief that our work would be helpful to others. It also required some intensive self-reflection on our own identities as scholars. The deeper definitional work of writing a methodology book in SoTL surfaced new questions for us as individuals and as a writing team. For example, does doing SoTL work ask us to give up or compromise on what we think of as core aspects of our academic commitments? How capable are we of seeing concepts through another lens? How do we manage the collegial conversation when we don't feel understood? How do we stick together and complete an important project through a boundary landscape when we are each having a different experience? As we pondered these questions, we recognized that the multidisciplinary space of SoTL practice is more complex than we had realized, even having worked in this space for well over a decade. While our manuscript is complete, we also recognize that we haven't completed the journey through the boundary experience, still tripping up along the way at times, getting a little lost, and needing to consult a compass and each other.

## Recommendations

Our reflections offer insights into the challenges of working in the multidisciplinary SoTL space and describe boundary experiences as an opportunity for learning. Academics have invested enormous amounts of time and energy in becoming socialized into their disciplines, learning not only the knowledge, skills, and specialized language of their field, but also claiming disciplinary identities. Moving into the world of SoTL can mean a challenge to these identities, and it's important to recognize this dynamic both in ourselves and others when it arises.

We note, too, that while we are always in a process of "becoming," so too is the field of SoTL itself. So these conversations are important not only as individuals and teams pursue their own growth and negotiate productive ways to work, but they are also important in contributing to new directions for SoTL work. How much diversity do we truly embody when it comes to paradigmatic, theoretical, and methodological perspectives? What values do we hold in common? And if we are all on a journey through boundary spaces, how do we work to understand each other when we meet?

We don't conclude this chapter with any answers, but rather describe aspects of common experience that other SoTL researchers may recognize and wish to engage with, as we all proceed through these boundary spaces as individuals and together. We encourage our fellow travelers to consider what aspects of your discipline might be coloring your perceptions, how you might listen more generously to colleagues where needed, and continue to explore the edges of the SoTL borderlands.

## **Reflection Questions**

- How would you describe your own experiences in SoTL? Does the idea of SoTL as a boundary space resonate?
- How has the practice of SoTL intersected with your disciplinary research practices? Can you identify any pinch points?
- If you are new to SoTL, how might these ideas help you prepare for what you are likely to encounter? If you work with new SoTL scholars, how might you help them prepare for boundary experiences?
- If you are experienced in SoTL, can you think of a situation where considering the practice as a boundary experience might have helped you navigate a project or team experience?

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### CHAPTER 18

# LEARNING FROM EACH OTHER'S JOURNEYS

### Editors' Epilogue

### Nancy L. Chick, *Rollins College*, US Janice Miller-Young, *University of Alberta, Canada*

In the end, the chapters in this book collectively illustrate that there are many paths to becoming a SoTL scholar, and each is far from the traditional academic journey. Each path charted in these chapters is both challenging and rewarding, and paves the way for others. Most explicitly, many chapters reflect on SoTL identity. Ten years after the self-study on SoTL identity development by Nicola Simmons, Earle Abrahamson, Jessica M. Deshler, Barbara Kensington-Miller, Karen Manarin, Sue Morón-García, Carolyn Oliver, and Joanna Renc-Roe (2013), our authors share many of the earlier authors' intra- and interpersonal "conflicts and configurations," but they also chronicle more varied experiences in the liminal space of becoming a SoTL scholar. The different entry points matter. Ten years ago, Simmons and colleagues rightly described this experience as "building an alternative identity" (2013, 15), but now some frame SoTL as part of their primary identity. Some are now pursuing a SoTL career before even having a degree (e.g., Abbot, chapter 3). Others are all but abandoning their original disciplinary identities (e.g., Eady, chapter 15; Webb, Kensington-Miller, Gansemer-Topf, Lewis, Maheux-Pelletier, and Hofmann, chapter 16). Even others have subsumed their earlier disciplinary selves into their primary identity as a SoTL scholar (e.g., Chick, chapter 8; McCollum, chapter 14).

The authors in *Becoming a SoTL Scholar* also remind us that identity development—of any kind—isn't linear. Instead, it's a recursive process of negotiation and renegotiation. As a review of nineteen issues of *Teaching & Learning Inquiry* reveals, SoTL is characterized by introspection (Poole and Chick 2022). One key area of such introspection is self-reflection on questions like "What parts of who I am are relevant to what and how I understand what is happening in this work, and in what ways? How is who I am changing as a result of this work? What matters most to me and why?" (2). We see these more detailed versions of "Who am I?" in the work of our authors across career stages, such as Brett McCollum's reflection on his "unlearning journey" by revisiting the teaching journal he's kept for years (chapter 14).

SoTL identity development is also a recursive process of negotiation and renegotiation through interactions with others. We see many transformative and clarifying moments of interaction among individuals. Corinne A. Green wonders, "What might have been, in some alternate reality, if my colleague hadn't invited me to the 2016 ISSOTL conference" (chapter 4). Nancy L. Chick describes a clarifying and collaborative meeting on an "early Saturday morning on the last day of the [ISSOTL] conference" when "a dozen or so" colleagues worked together to articulate their shared work in SoTL to help SoTL scholars in the humanities more effectively "communicate their authentic work in SoTL's multidisciplinary spaces" (chapter 8). As Kristin Winet was "saying goodbye" to her discipline and her tenure-track life, a colleague invited her to consider a new career: "Look up the scholarship of teaching and learning" (chapter 10). Winet writes, "Over time, I would come to see 'the coffee shop moment' as a pivotal one in my professional life, a moment that would come to help me redefine what I meant to the academy—and what it meant to me." Jeff Paul describes how he realized through "reading, talking to like-minded people, and attending SoTL events and conferences" that SoTL was his scholarly home (chapter 12). Finally, Brett McCollum describes an intensive teaching workshop as both the "entry point for me to the teaching and learning literature"

and the "influential . . . structure as a learning community" (chapter 14). For him, this body of writing by "research teams investigating teaching and learning outside of schools of education"—notably characterized as people, not just texts—introduced him to a new scholarly community, and the learning community that interacted outside of the "expert-novice hierarchy" were transformative to his future as a SoTL practitioner and mentor.

Another common theme across the chapters is the benefits of collaboration. Individual authors Lorelli Nowell (chapter 2), Matthew Fisher (chapter 7), and Michelle Eady (chapter 15) offer collaboration as one of several important strategies for advancing a career in SoTL, while others write in detail about their collaborative approaches such as journal clubs (Celeste Suart, Michelle Ogrodnik, and Megan Suttie, chapter 5) and learning communities (Bruce Gillespie, Michelle Goodridge, and Shirley Hall, chapter 11). This underscores the idea that SoTL is indeed a multidisciplinary field that thrives on scholars crossing and pushing boundaries, a trait that will help the field to resist any tendencies toward homogenization (Felten and Geertsema 2023).

It's worth noting that almost half of our chapters were written collaboratively. Indeed, collaborative writing is common in SoTL. To illustrate, "70% of the published pieces in Teaching & Learning Inquiry and 55% of those in The International Journal of the Scholarship of Teaching and Learning have been collaboratively written" (Chick 2023, 1). But this collaborative work isn't part of all academic fields. For Nancy, whose life as a traditional literary scholar for whom research and writing are solitary ended in the previous century, the collaborative work of SoTL continues to be remarkable. Solitary work doesn't require one to participate in an ongoing process of identity negotiation. Collaborative work, on the other hand, demands it. Writing with our colleagues demands it even more. From start to finish, collaborative writing is a constant negotiation of each author asking and answering questions like: What should we say? What did we do? How should we write it? What do we mean? What do you mean? Janice Miller-Young, Michelle Yeo,

and Karen Manarin (chapter 17) describe how difficult these questions can be to answer in a truly collaborative writing project, as opposed to previous projects where they've taken a divide-and-conquer approach. Further, Andrea Webb, Barbara Kensington-Miller, Ann Gansemer-Topf, Heather Lewis, Geneviève Maheux-Pelletier, and Analise Hofmann illustrate how they used narrative inquiry to collaboratively explore such questions, allowing them to also "engage in work that [they] value and that has potential to benefit many others" (chapter 16).

Editing this book has been the product of a collaboration that has informed how we think about ourselves as SoTL scholars. We started to observe these effects early on. Immediately after we read the first drafts of all the chapters, we decided to write brief narratives about our own experiences with the book and how we located SoTL within our careers. We share those narratives below. We had originally included them in our introduction, but as we finish this editors' conclusion one year later, we're struck by how the above observations about the book's chapters are prefigured in our brief narratives.

## On Becoming a SoTL Scholar and Editing This Book

### Janice's Journey

I developed both new insights and a deepened SoTL identity through the editing of this book. For example, Nancy and I facilitated an internal, single-blind peer-review process during the writing of the chapters where all authors reviewed other chapters in the book (before the peer-review process facilitated by the publisher). I found it informative, if not surprising, to see how scholars from different disciplinary backgrounds saw certain genres as more or less valuable. Also, as someone with a STEM background and who strives to promote and support inclusivity in SoTL in terms of research paradigms and methodologies, I felt somewhat troubled by my own lack of confidence and therefore my reliance on my humanities colleagues to review the more affective and narrative-style chapters. I still have some growing to do in this area.

At the beginning of the editing process I would have said that I do SoTL, but I didn't identify as a SoTL scholar, because I found it difficult to identify with a term that has so many different meanings to different people. But, after reflecting on how much I have learned from collaborating with others, particularly with those from disciplines far from my own, I now confidently identify as a SoTL scholar. I still feel some discomfort with the use of metaphors in SoTL and with some of my humanities colleagues' resistance to defining terms. At the same time, my frustration with the limitations of language and traditional metaphors compelled me to try to push boundaries in my own way, and I decided to explore how an illustrated chapter could meet the criteria of scholarship, including being peer reviewed and making a novel contribution to the SoTL conversation (chapter 13). I guess this shows I'm at the stage of my SoTL career that I don't mind taking a few risks to try something new and different.

### Nancy's Journey

I built a career in SoTL without planning it. I discovered SoTL in graduate school in the 1990s and never wavered from that interest in using my disciplinary strengths to better understand students' learning experiences, and ultimately the field itself. Reading voraciously, carefully analyzing my students' work, and observing how power continually plays out in the field, I now devote most of my time to supporting and guiding colleagues in SoTL, whether they choose to dabble or immerse themselves in the field. I can't remember a time when I didn't identify as a SoTL scholar. In fact, even in my most recent role in a faculty development center, I continue to identify as a SoTL scholar because I approach this work—whether providing one-on-one consultations, facilitating a workshop, leading a book discussion, or advising departments—by intentionally drawing on what I've learned from doing, reading, and generally learning from SoTL.

Janice's invitation to collaborate on a book about SoTL careers coincided with my work co-facilitating a multi-campus program for mid-career faculty seeking change, meaning, and even joy in their remaining years in the profession. The two projects felt aligned as part of a post-pandemic effort to redefine the experiences of working in higher education. There was a time when most of my SoTL colleagues had turned to SoTL precisely at that mid-career questioning of "What should I do now?" But this book has confirmed my hunch that this later moment of existential self-exploration is no longer the most common entry point into SoTL.

Co-editing this book has, in some ways, felt very similar to co-editing *Teaching & Learning Inquiry*, the journal of the International Society for the Scholarship of Teaching and Learning. Even though the book project is bounded and far more specific than the journal, the approaches to knowledge construction, writing styles, and genres of some of the chapters have met with the same resistance as what I saw in the journal's peer review by colleagues who bring specific expectations for what these features of academic work should look like. It's a natural consequence of such a multidisciplinary field that always invites newcomers who are also disciplinary experts; navigating these power dynamics is important (but challenging) editorial work.

Don't tell Janice, but my favorite part of this project has been watching her ideas unfold—from the very idea of the book and its structure, to her honest struggles reflected in her description above, to her powerhouse of a chapter that blows up how we've been thinking about SoTL. Working with her has just reinforced for me the sense that good collaborations are what keep me thriving as a SoTL scholar.

Our own entry points and journeys couldn't be more different. Janice was introduced to SoTL after having developed a strong disciplinary identity, and Nancy was introduced to it early on. Janice resisted a SoTL identity for many years, and Nancy embraced it. Each of us has written an individual reflective piece for this book, and we've had insights as a result of collaborative projects, including our work together on this book.

In the end, we hope that all the journeys chronicled in *Becoming a SoTL Scholar* invite readers to reflect on their own path to SoTL and where their entry point was, is, or will be. We hope introspective questions like "Who am I?" will prompt readers to recall key moments in their own experiences, and how those moments have resonated over time. We also encourage readers to consider how their individual work has differed from any collaborative work in this journey, and how others have contributed to their development as a SoTL scholar.

We especially invite readers to consider and share with others what milestones aren't depicted in this book. As we noted in our introduction, the book's authors come from Canada, the US, and Australia, but we'd originally hoped our chapters would represent more of the international field of SoTL. We especially hope readers from countries and contexts not represented in the book explore and share—their experiences in becoming SoTL scholars. Even as the field of SoTL approaches thirty-five years of existence, with its own journals, conferences, and credentials, we all still have much to learn, and much to learn from each other.

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