

Becoming a SoTL Scholar

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Identity Exploration



Multidisciplinary



Reflective Essay

CHAPTER 17

NAVIGATING BOUNDARY EXPERIENCES IN SOTL

Pinch Points, Paradigms, and Perspectives

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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

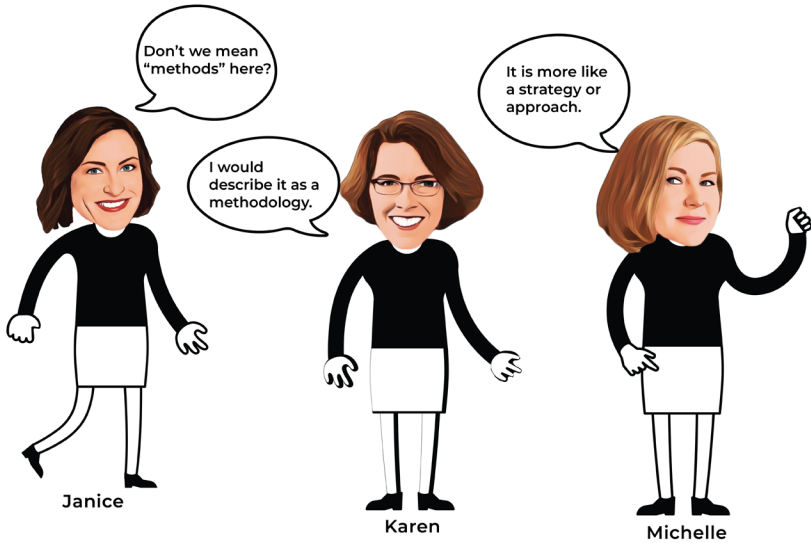


Figure 17.1. Direct quotes from our discussions of content analysis and thematic analysis. From left to right: Janice (engineering), Karen (English), and Michelle (education).

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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