



International Journal for the Scholarship of Teaching and Learning

Volume 8 | Number 2

Article 1

July 2014

‘Methodologically Sound’ Under the ‘Big Tent’: An Ongoing Conversation

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Recommended Citation

Chick, Nancy L. (2014) "‘Methodologically Sound’ Under the ‘Big Tent’: An Ongoing Conversation," *International Journal for the Scholarship of Teaching and Learning*: Vol. 8: No. 2, Article 1.
Available at: <https://doi.org/10.20429/ijstl.2014.080201>

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Abstract

This essay synthesizes ongoing conversations as it explores the third and arguably most complicated of Peter Felten's "Principles of Good Practice in SoTL," "methodologically sound."

Keywords

Quality, methodology, identity, complexity, disciplines

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'Methodologically Sound' Under the 'Big Tent': An Ongoing Conversation

One of the most common metaphors of the scholarship of teaching and learning is the “big tent” (Huber & Hutchings, 2005, p. 30). It’s not just a tent: it’s a big tent, promising an “inclusive and open” vision of the field (Chick, 2013a, p. 15). It’s also the metaphor that launched a thousand conversations. This invitation from *IJ-SoTL* allows me to synthesize a dozen or so of these conversations from the last few years.¹ I officially joined this set of conversations as part of a panel at the 2011 conference of the International Society for the Scholarship of Teaching and Learning (ISSOTL) and in “Difference, Power, and Privilege in SoTL” (Chick, 2013a), and have extended it in meetings, presentations, workshops, campus visits, emails, interest group projects, Facebook interactions, Skype calls, and an online *SoTL Guide* (Chick, 2013b).

The big tent’s absence of walls speaks to the challenge of discussing quality in SoTL. Kathleen McKinney (2007) asks, “Can SoTL be of good quality and how is that defined?” (p. 21-22). As she points out, some have attempted such definitions (e.g., Glassick, Huber, & Maeroff, 1997; Theall & Centra, 2001; Bernstein, Burnett, Goodburn, & Savory, 2006; McKinney, 2006; Weimer, 2006), and most of the major SoTL journals have rubrics for the quality of the work they’ll publish. Yet the conversation continues—and rightly so.

The ongoing nature of these discussions *about* SoTL is a sign of the health of the field. As my *Teaching & Learning Inquiry* co-editor Gary Poole and I asserted in “The Necessary and Dual Conversations in a Vibrant SoTL” (Chick & Poole, 2014),

We in the field devote so much time, space, and copy to evaluating and theorizing SoTL (in addition to reporting on the work itself). We do this, not to belabor already exhausted topics or to suggest an immaturity of the field; instead, this meta-SoTL chronicles and even celebrates the ongoing sense of becoming and being a confluence of diverse and serious inquiries from specific contexts. (p. 1)

Such self-reflection and -assessment allow us to explore issues identity, power, and epistemology, all of which underlie the

question of quality. Pat Hutchings has noted that "Every scholarly and professional field is defined in part by the questions it asks" (2000, p. 4). She and her Carnegie colleagues (as she's quick to point out when citing her alone) created perhaps the most known taxonomy of SoTL projects, identifying them by their initial questions: "what works?", "what is?", or "what's possible?",² and "theory-building" questions that develop "a new conceptual framework for shaping thought about practice" (p. 4-5). In this fourth type, Hutchings and colleagues situate these kinds of discussions *about SoTL* within the work of SoTL.

Also at the 2011 ISSOTL conference, Peter Felten's plenary responded to the question about quality. He listed five "principles of good practice," simple in style but complex in meaning: inquiry focused on student learning, grounded in context, methodologically sound, conducted in partnership with students, and appropriately public (2013).³ While all call for conversation, I'm particularly interested in the third, "methodologically sound" (p. 123), as I see it as one of the most complicated, debated, and important concepts of SoTL—in both theory and practice.⁴

What does Felten mean by "methodologically sound"? He first acknowledges the historical tensions surrounding methodology—not yet measures of soundness but which approaches are even considered appropriate. SoTL practitioners, he notes, bring their disciplinary expertise, which "incline[s] them] toward different questions and distinct ways of collecting and analyzing evidence of student learning," but "social science research methods became particularly influential" (p. 123). One consequence of this tension is that the research practices most familiar in literature, languages, philosophy, humanistic history and communication, music, visual arts, and theatre (among others) are too often framed within a deficit model—or, as Poole illustrates, "it isn't research" (p. 136).⁵

Felten's discussion of this third principle concludes, "Regardless of methods employed, good practice in SoTL requires the intentional and rigorous application of research tools that connect the question at the heart of a particular inquiry to student learning" (p. 123). In his gentle way, he affirms the

openness to differing ways of conducting research, emphasizing that quality comes from being deliberate and meticulous. In fact, he shifts the measure of quality from the *type* of methodology applied to *how* it's applied, calling for "methodologically sound" SoTL, not "sound methodologies." The former urges care and attention to process in its myriad manifestations; the latter is gatekeeping.

A Word about Words

Before further discussing methodolog[icall]y, we should recognize that this language—and much of the language of SoTL—isn't used in all disciplines. We talk about trying to use clear language to accommodate the internationality of SoTL (admittedly with limited success), but we less often interrogate our language to accommodate the field's multidisciplinary. If naming something gives one power over it, the pervasiveness of "method" and "methodology" (the rationale and logistics for a project's structure, evidence, and analysis), "data" (evidence of student learning), and "quantitative or qualitative" (types of evidence *and* modes of analysis) leaves many of our colleagues powerless in SoTL. It would seem that we have no "methodology," no "data" of any kind, and no way of analyzing that data. This apparent deficit is what leads many humanists and artists to preface their work with "This isn't really SoTL," as Sherry Linkon describes in "Controversies, Debates, and Tensions in SoTL" (2013). When entering any new community, we learn the language, but the initial challenges of finding ways to fit in and struggling to be recognized in our authentic ways can't be overestimated. And so, I share the following as my understanding of methodology:

project design
evidence of learning
+ how evidence is analyzed
METHODOLOGY

Project Design: What's the Question?

As Felten notes, the quality of SoTL methods begins with "the *question* at the heart of a particular *inquiry*." His language here is meaningful, twice suggesting that projects should be

driven by and designed around a question. While inclusively referring to the common ground of “inquiry” in any research, exploration, interpretation, making-of-meaning, or experiment, he also invokes Hutchings and colleagues’ emphasis on questions in classifying the work of SoTL.⁶ For the purposes of this essay, I’ll focus on the first two (“what works?” and “what is?”) because they’re the most common for projects that emerge directly from the classroom. When instructors wonder if this strategy or that tool helps their students learn more, they’re asking, “what works?” They’re solving problems and evaluating by testing a hypothesis, making a comparison, conducting an intervention, seeking causation, or measuring change. When instructors wonder what’s going on when students repeatedly become confused or what they’re thinking when they attempt this practice or figure out that skill, they’re asking, “what is?” They’re seeking understanding by bypassing assumptions, making visible what previously wasn’t, discovering, explaining, describing, analyzing,⁷ and interpreting. The two questions—“what works” and “what is?”—lead to clear and different goals and thus clear and different methodologies.⁸ Evaluative projects are based on comparisons of student learning, deriving meaning from (often quantitative) demonstrations of change, so their design is predetermined and more structured, typically involving more students. Interpretive projects, on the other hand, are based on rich descriptions of student learning (one student, a few students, or many students), drawing meaning through qualitative descriptions, so their design may evolve as the analysis of the evidence leads to a fuller and more complex understanding.⁹

In a recent study in which my colleague Cynthia Brame and I analyzed the projects from our institution’s SoTL programs over the years, we noted a few important findings related to project type (Chick & Brame, 2013). While our study was institutionally specific, I’ve observed these same patterns in the broader field, but it was helpful to see them spelled out in numbers and charts.¹⁰ (There is indeed something singular about this kind of data, even to verbivores like me.) First, a majority were “what works?” projects, even though they were almost exclusively participants’ first attempts at SoTL.¹¹ Projects that

offer a solution to a problem or demonstrate the effectiveness of a strategy are particularly attractive. We want to improve our teaching and our students' learning. We want help where we struggle. We want to learn effective practices from each other. These projects are essential to the health of the field and advancing knowledge about learning.

However, we also need "intentional and rigorous" descriptive and interpretive projects as well. Nearly every time I highlight this type of project in workshops and presentations, at least one audience member expresses something close to a recent comment, "To be honest, I just don't see the value in this kind of work." If it doesn't solve the problem, is it useful? Is it research? Why bother? If it's not part of the solution, isn't it part of the problem? On the contrary, there's great meaning in work that articulates what had been unsaid, carefully documents what had been assumed, or analyzes what had been taken for granted. Think of the documentation of students' preconceptions and misconceptions, or the more recent work identifying threshold concepts. Projects that ask, "What is happening when students are learning—or not?" are "intentional and rigorous" when they are iterative, additive, analytic, and synthetic. They draw from an extended family of practices such as close reading (Bass & Linkon, 2008), grounded theory, (auto)ethnography, phenomenology, phenomenography, and other equally systematic qualitative approaches.

Brame and I also found in our study some fairly clear disciplinary distributions by project type—speaking directly to my interest in our disciplinary identities and how they affect our work. Specifically, humanistic fields that typically seek meaning through description, analysis, and interpretation accounted for most of the "what is?" projects, and the more numerous "what works?" projects came largely from the social sciences and STEM fields that are well versed in interventions and comparisons. If this pattern holds true across the broader SoTL community, the concern that some questions about student learning won't get asked becomes less rhetorical.

A difficulty has arisen from what might be called the overly "intentional and rigorous" design of some "what works?" projects. To some, experimental design is the model of

excellence, the gold standard that is adapted in SoTL to the circumstances of the classroom. There appears, however, to be a consequence of holding too tightly to that ideal, pushing some projects beyond "methodological soundness." We often talk about our fears of being an amateur in SoTL by stepping too far outside of our expertise; here is perhaps a caution of not stepping far enough outside. Catherine Lewis, Rebecca Perry, and Aki Murata (2006) describe this problem in "How Should Research Contribute to Instructional Improvement?": the design of a project may prevent its results from being usable by others. They write, "the very qualities that suit an innovation to controlled trial may handicap it at the later stage of broad dissemination" (p. 8). They situate the problem in the initial vision of a project's goals: researchers seeking "causal proof of an innovation effectiveness' under controlled circumstances at initial sites" sacrifice "'legs' and effectiveness at subsequent sites of spread." Is the goal of SoTL "*proof of innovation effectiveness under controlled conditions*" or "*instructional improvement at sites of spread*" (emphasis in original)? This choice is reminiscent of Donald Schön's "dilemma of rigor or relevance" (1995, p. 28):

In the very topography of professional practice, there is a high, hard ground overlooking a swamp. On the high ground, manageable problems lend themselves to solution through the use of research-based theory and technique. In the swampy lowlands, problems are messy and confusing and incapable of technical solution. The irony of the situation is that the problems of the high ground tend to be relatively unimportant to individuals or to the society at large, however great their technical interest may be, while in the swamp lie the greatest problems of human concern.

These "swampy lowlands" are made up of the complexities of the classroom or classrooms, complexities that challenge some "standards of rigor." Poole (2013) likewise encourages us to "shift from an imperative of proof to an imperative of understanding, ... from an imperative of generalizable simplicity to one of representing complexity well" (p. 141).

Evidence of Learning: Representing Complexity Well

Whatever the goal, all SoTL draws on evidence that documents student learning.¹² The range of potential material is wide, including samples of students' work, classroom assessment techniques, process captures, scores, counts, first-hand reports, and institutional research data. They are essays, presentations, online or recorded discussions, minute papers, muddiest points, clicker data, annotations of a text, think-alouds, process logs, concept maps, a single exam question, a whole exam, quizzes, online postings, office visits, numbers of pages read or written, hours studied, survey results, interviews, focus groups, retention rates, and course GPAs. They can document everything from the specific experiences of individual students to students in a single course to larger patterns across institutions—and beyond. These materials may be regularly assigned course work or newly implemented in the effort to more fully understand student learning.

The "soundness" of the evidence comes first from its relevance to the goal of the project. Poole notes simply, "It is viable research if its methods fit the purpose" (2013, p. 148). This coherence begins with fully understanding the research question: what is it asking, and what kinds of information would best answer it? If a project seeks to show improvement in learning, drawing from a single set of student papers falls short, as does a survey asking students if they think they improved. If it seeks to illuminate what's happening when students underperform, statistical data falls short.

The strength of the evidence is also tied to its richness. Rather than saying we should use "multiple sets of data," which is denotatively accurate but connotatively limited, I draw on the simplicity, elegance, and complexity of "richness." Collecting multiple and complementary depictions of the students' learning does indeed provide stronger evidence than a single source. Within this multiplicity is also evidence gathered at more than one moment of learning. Some of it makes visible students' final performances, and others reveal the less accessible processes and ideas during the formative, intermediate stages of learning (Bernstein & Bass, 2005, p. 39). "Richness" also comes from the types of evidence—namely, quantitative (numbers) or qualitative

(descriptions). The richest access to student learning I've encountered came in a project that drew from a collection of individual notes on a poem; in-class small-group analysis; observations, field notes, and videorecordings of the small-group discussions and the subsequent whole-class discussion; each group's multiple pages of annotations on a poem; and a more thoughtful out-of-class writing assignment (Chick, Hassel, & Haynie, 2009).

And yet in our local study, Brame and I found that almost half of the projects drew solely on numerical evidence, a breakdown that again mirrors much of what I've seen in the broader field. Certainly, without hesitation or qualification, I agree that numerical data gives us important information, and sometimes the most direct answer certain questions. At the same time, though, qualitative evidence—students' words or compositions or sketches or gestures or brushstrokes or textures—helps us capture more layers of their learning experiences, especially those thick with meaning. Poole urges us to "represent complexity well," a charge that includes representing student learning *meaningfully*. The parable of the blind men and the elephant (a branch, a fan, a wall, a rope), Wallace Stevens's poem "Thirteen Ways of Looking at a Blackbird," or the notion of "triangulation" speak to the important and complex nature of the multiplicity (in amount, chronology, and type) of effective evidence.

How Evidence Is Analyzed: What Does It Mean?

Closely related to evidence type is how it's analyzed, or how we use it to meaningfully answer the project's inquiry. If the goal is to understand and improve student learning, and learning is inherently complex, then the analysis should preserve and respond to at least some of that complexity, rather than flatten out students' experiences. As with the evidence itself, the analysis is typically described as quantitative or qualitative. Over a decade ago, Craig Nelson (2003) criticized "the tendency in some circles to attempt to apply to SoTL the models of research that recognize only quantitative studies" (p. 90). That tendency persists. A healthy majority of the projects in our study (Chick & Brame) used only quantitative processes, no matter the type of

evidence. In other words, even with non-numerical materials like student writing, the project made sense of it with *only* numbers, overlooking meanings found through interpretive analyses. (I'm aware of the apparent irony in my quantitative representations of these SoTL projects, but our study used a variety of types of evidence and ways of making sense of that evidence. Here, the numerical results provide quick and precise—not to mention startling—meaning.) Again, without hesitation or qualification, I agree that numerical analyses give us important information and sometimes the most direct way to answer certain questions. And again, at the same time, descriptive or interpretive analyses help us recognize and understand more layers of our students' learning experiences.

What does this approach look like? One powerful illustration appears in "Lucky to Live in Maine': Examining Student Responses to Diversity Issues" (Fallon, 2006). I selected this article as a model for a project with ISSOTL's Arts and Humanities Interest Group, and I share my annotation here:

She reads student writing with the same seriousness as she reads a literary text: there's more to it than a quick or plot-focused reading will reveal, and there are probably multiple things going on at once. As she notes, "So why, then, did some students whose presentations demonstrated an understanding of the complexity of diversity issues 'fall back' into more simplified positions? And were these apparently 'simplified' or 'reductionist' positions as simple as they might seem?" (412) In the same way that we assume an intelligence and richness in literary language, she stops herself (and others) before dismissing student work with simplified, denotation-based interpretations. She claims, "When we examine student learning, however, nothing is as obvious as it might seem" (413). Yes. Students and their language choices are complex, multivalent, and meaningful—and should be read...with an engaged, rigorous, and layered approach. How does she do this? She sees how students' seemingly regressive moments are part of a pattern of "fluctuation," a "metastable state where they are striving for complexity," but the difficulty of this cognitive shift

sometimes makes them seek something comfortable or “less challenging” for awhile (413). This is very different from the typical rhetoric describing students’ resistance, giving up, rejection, and failure to learn. (Chick, 2012) Fallon asks what is happening as her students learn about diversity over the course of the semester. To find out, she looks to her students’ posters, presentations, discussions, writings, and end-of-class survey responses—as well as her own “teaching experience and ... conversations with colleagues about similar moments ... later confirmed by the scholarly literature” (p. 413). She discovers a set of thinking processes that provide a richer understanding of what happened in her class, thereby helping us consider how our students may encounter similar struggles.

A Final “Imperative of Understanding”

I’ll end by asking for understanding of the tensions surrounding discussions of methodology. In “Conflicts and Configurations in a Liminal Space: SoTL Scholars’ Identity Development” (2013), Nicola Simmons, Earle Abrahamson, Jessica M. Deshler, Barbara Kensington-Miller, Karen Manarin, Sue Morón-Garcia, Carolyn Oliver, and Joanna Renc-Roe offer a useful articulation of how we experience SoTL over time. Looking at their own involvement across multiple nations, academic roles, disciplines, and levels of SoTL experience, they acknowledge that

SoTL has troubled our identities, but has simultaneously led us to new understandings of ourselves. We see this unsettling of identity as inherent to the processes of engaging with SoTL and that normalizing it as such may be helpful to others. The tensions that arise are to be expected, as is the transformative paradigm shift that can occur as academic identity in SoTL becomes more deeply understood. (p. 10)

And so as we gather under this big tent, let’s keep the conversation going, but be gentle with each other, knowing that we all struggle with who we are and what we do when we step across that threshold. The discomfort surrounding discussions of “methodological soundness” are expected as each of us encounters “methodological alienation” in an “ongoing identity

struggle,” confronts “conflicting identities” leading to epiphanies, and hopefully reaches “a second home” of “community,” “paradigm shifts,” and “belonging” (p. 13-15). In this vein, perhaps our learning process is similar to Fallon’s students: fluctuating, metastable struggles toward complexity.

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Endnotes

¹ I'm grateful for so many enriching conversations with so many colleagues, including Gary Poole, Peter Felten, Tony Ciccone, Cynthia Brame, Sherry Linkon, Kathleen McKinney, Andrew Greer, Margy MacMillan, and Janice Miller-Young. I'm especially grateful to my former colleague and friend Renee Meyers for her many SoTL workshops, presentations, and explanations of social science methodologies in SoTL. This essay comes from the wealth of these conversations.

² She calls it "visions of the possible," but it's hard not to make it parallel to the first two. As a fellow English Ph.D., she probably wouldn't mind.

³ Felten's essay in the inaugural issue of *Teaching & Learning Inquiry* explains these principles and is available at <http://www.jstor.org/stable/10.2979/teachlearningqu.1.1.121>.

⁴ In this essay, I will occasionally draw from my own experiences and observations. Trained as a literary scholar, I was introduced to SoTL in the mid-1990s and have since served as consultant, supporter, funder, mentor, mentee, reviewer, collaborator, author, and co-author on hundreds of SoTL projects. As the Program Chair for the 2011 ISSOTL conference and founding co-editor of *Teaching & Learning Inquiry*, I've also read the proposals to a major conference and now the submissions to the journal—and even more importantly—all reviews for both, as well as reviews for my own manuscripts.

⁵ For extended discussions of these issues, see Bass and Linkon (2008), "Controversies, Debates, and Tensions in SoTL" (2013), Chick (2013a), and Poole (2013).

⁶ There are, of course, other ways to categorize SoTL projects (e.g., Nelson, 2003; Killen & Gallagher, 2013). I find the

simplicity of the Hutchings taxonomy most broadly useful as an entrypoint and framework for structuring a project. Nelson's is useful in that it describes 13 "genres" of SoTL, with greater variety; however, he uses the language of scientific methodologies, and his genres fit effectively into Hutchings's four types, so I use Nelson's to build on Hutchings's. Killen and Gallagher's is a specific and evaluative rubric that describes 6 types of projects when done well and not so well. It's explicit and clear about quality. Unfortunately for those of us not in theology and religion, their analysis is focused on SoTL in their field and specifically in *Teaching Theology and Religion*. Imagine such an analysis in other disciplines, within cognate clusters of disciplines, or across the breadth of SoTL. One can dream.

⁷ I mean "analysis" not in the generic sense but in the traditional Bloom sense of breaking something down into its parts.

⁸ The goals are different, but not unrelated, sequential, with "what is?" necessarily preceding "what works?" After all, we can't know if something "works" until we know what's happening or what it looks like in the first place. Solid literature reviews on well-studied subjects can effectively establish the "what is?" but the question must still be asked.

⁹ My comments in this essay (and elsewhere) begin with the assumption that student learning is complex. Readers who don't agree with this fundamental assumption certainly won't agree with what follows.

¹⁰ At ISSOTL14, Felten, MacMillan, and I are facilitating a preconference workshop entitled "A Collaborative Flash-Research Project on the State of the Field of SoTL" in which participants mine the broader field to jumpstart a similar analysis of the whole field.

¹¹ Participants in our institution's SoTL programs were graduate students or post-docs.

¹² I again look to Felten for clearly articulating the nuance this mandate. His first principle is "inquiry focused on student learning," which "usually focuses on students, but it can also include explorations of how teaching and teachers influence student learning" (p. 122).