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Abstract

Excerpt: A variety of sources have expounded on the exponential growth of knowledge, and current projections estimate knowledge doubling every one to two years. I would argue that what has exponentially increased is the availability of and our virtually immediate access to larger sets of data and information; however, this access to data or information does not automatically correspond to an increase in knowledge, and even less so to informed judgments with knowledge or “practical reasoning” (Sullivan & Rosin, 2008). We have only to look at our educational systems, colleges or universities, or even our classrooms for evidence of a wealth of accessible information with no corresponding richness of knowledge. Specifically, it is our nascent knowledge of how our students are acquiring and applying their knowledge that has drawn unwanted and in some cases unwarranted criticism of higher education (cf. Bloom, 1987; Bok, 2004; Hacker & Dreifus, 2010; Brandon, 2010; Arum & Roksa, 2011). In sum, many perceive a lack of knowledge about what transpires in our classrooms and the qualifications of our graduates; as a result, higher education, faculty teaching, and student learning are in a national spotlight.

Keywords

Scholarship of teaching and learning, Heuristic methodology, Faculty development, Transformative community builder

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SoTL as Generative Heuristic Methodology for Building Learning Communities

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A variety of sources have expounded on the exponential growth of knowledge, and current projections estimate knowledge doubling every one to two years. I would argue that what has exponentially increased is the availability of and our virtually immediate access to larger sets of data and information; however, this access to data or information does not automatically correspond to an increase in knowledge, and even less so to informed judgments with knowledge or “practical reasoning” (Sullivan & Rosin, 2008). We have only to look at our educational systems, colleges or universities, or even our classrooms for evidence of a wealth of accessible information with no corresponding richness of knowledge. Specifically, it is our nascent knowledge of how our students are acquiring and applying their knowledge that has drawn unwanted and in some cases unwarranted criticism of higher education (cf. Bloom, 1987; Bok, 2004; Hacker & Dreifus, 2010; Brandon, 2010; Arum & Roksa, 2011). In sum, many perceive a lack of knowledge about what transpires in our classrooms and the qualifications of our graduates; as a result, higher education, faculty teaching, and student learning are in a national spotlight.

As Huber and Hutchings (2006) remind us, “There has always been a literature about the classroom. But systematic attention to teaching has largely been the province of small, disconnected communities of faculty reading and contributing to the few newsletters, journals, and conferences where pedagogical issues in their fields were aired” (p. 25). The scholarship of teaching and learning offers such a systematic approach to the study of teaching and learning by transcending “good teaching” or even scholarly teaching (Smith, 2001) and entails a public account open to “critical review by the teacher’s professional peers and amenable to productive employment in future work by members of the same community” (Shulman, 1998, p. 6). Although “there are many ways to improve the quality of education, we believe that the scholarship of teaching and learning holds special promise” (Huber & Hutchings, p. 24.).

In this essay, I wish to explore the special promise of the scholarship of teaching and learning—with the goal of not just increasing our informational base or satisfying the critics of higher education, but rather, deepening our understanding of teaching and student learning—“by exploring the scholarship of teaching and learning as generative, heuristic methodology; as faculty development; and as transformative community builder. If SoTL is able to transform itself in these ways, it offers the larger educational community a mechanism by which to truly build a knowledge network worthy of shaping the best of educational practices and evidencing our students’ learned knowledge in ways that will impact their lives and our communities.

SoTL as Generative, Heuristic Methodology

The generation of heuristic decisions, consistent with the methodology approach, is concerned with “procedures that are independent of subject matter and have application to wide ranges and types of problems” (Oneill, 1964, p. 7). According to Polya, “The aim of heuristic is to study the methods and rules of discovery and invention” (1945, p. 102). More specifically, “modern heuristic endeavors to understand the process of solving problems. . . Experience in solving problems and experience in watching other people solving problems must be the basis on which heuristic is built” (p. 118).

Additionally, a methodology is a “philosophical study of plurality of methods . . . It always has to do with the activity of acquiring knowledge, not with a specific investigation in particular. It is, therefore, a metamethods” (Watzlawick, Weakland, & Fisch, 1974, p. 8). The need for a methodology, or options (or question) generator, seems obvious given that the decision that best serves one’s needs in any given classroom situation may not be the decision that best serves one’s or another’s needs in another classroom, disciplinary, or educational situation.

The scholarship of teaching and learning is this methodology, capable of generating heuristic decisions and informing others’ educational practices. As noted by Hutchings (2000), “A key principle is that there is no single best method or approach for conducting the scholarship of teaching and learning” (p. 1). As such, SoTL offers a taxonomy of questions and embraces methodological pluralism. Together, this serves (or can serve) as an options generator in the systematic study of a wide variety of teaching and learning questions.

The nature and variety of questions is almost limitless and are currently being generated by a variety of educational stakeholders (e.g., students, parents, faculty, educational administrators, regional and specialized accreditation agencies). A number of SoTL scholars (e.g., Hutchings, 2011; Reichard, 2012) have addressed the role that SoTL may play in providing direct evidence of student learning that shapes practices from classroom instruction to curriculum development or program review to institutional assessment and accreditation. In fact, the interconnections between SoTL and these various educational activities is bidirectional (i.e., SoTL studies may answer certain educational questions and each of these educational activities may generate SoTL research questions) and has historically offered a number of “openings” through which faculty and other educational researchers have found or embraced the scholarship of teaching and learning.

Is it possible to move beyond bi-directional relationships or overlapping constructs (e.g., SoTL-assessment; SoTL-program review; SoTL-disciplinary learning) and conceive of SoTL as the generative mechanism by which questions from any domain may be systematically answered and, in the spirit of SoTL, publicly shared? Unlike discipline-specific research, SoTL offers procedures independent of subject matter and applicable to a wide range and types of problems and endeavors to understand the process of solving problems. It is, by definition, a generative heuristic that has “gone meta” (Smith, 2001, p. 58). Even a cursory review of the SoTL literature will identify similar questions being explored in diverse disciplines and potentially using different research designs or methodologies. That is the power of the scholarship of teaching and learning as generative, heuristic methodology.

SoTL’s generative potential has not yet been reached. “Teaching and learning are complex processes. . . [and] developing a broader, more sophisticated repertoire of methods is clearly one of the challenges facing this work, and a necessary step in advancing the

scholarship of teaching and learning as a field" (Hutchings, 2000, pp. 6-7). Collectively, the body of SoTL work, publicly disseminated, offers a knowledge network from which we can learn from and build upon, even when we experience conflicting and contradictory findings, substantive disciplinary and pedagogical differences, and even some challenges to our taken-for-granted assumptions about 21st (or more realistic, 20th century) educational practices.

But that, again, is the power of SoTL as a generative heuristic methodology; as Gergen noted (1978),

It may be useful, then, to consider competing theoretical accounts in terms of their *generative capacity, that is, the capacity to challenge the guiding assumptions of the culture, to raise fundamental questions regarding contemporary social life, to foster reconsideration of that which is 'taken for granted,' and thereby to furnish new alternatives for social action.* It is the generative theory that can provoke debate, transform social reality, and ultimately serve to reorder social conduct. (p. 1346)

Although the deliberate act of looking at teaching from the perspective of learning may go "against the grain," "ultimately, the measure of success for the scholarship of teaching movement will not be the degree to which it can—by focusing on the 'many layers of practice' at the heart of teaching—discover *solutions* worth implementing, but the extent to which it is successful in discovering *problems* worth pursuing" (Bass, 1999).

SoTL as Faculty Development

The shift in focus whereby one re-envision one's teaching by identifying and studying problems and the development of a more sophisticated repertoire of methods will require faculty development. In the oft-cited article, Bass (1999) recognizes the need for this paradigmatic shift, "In scholarship and research, having a "problem" is at the heart of the investigative process; it is the compound of the generative questions around which all creative and productive activity revolves." The answer to his following question, "How might we make the problematization of teaching a matter of regular communal discourse?" likely involves faculty development.

The scholarship of teaching and learning is good for faculty professional development (Trigwell & Felton, 2011) and has offered a natural progression of development—from teaching to scholarly teaching to the Scholarship of Teaching—and is beginning to stimulate models of Faculty Development for SoTL. The connection between faculty development and SoTL is not entirely surprising, as noted by Potter (2011), "certain parallels between the two bodies of scholarship are readily apparent" (p. 289).

In a "first step in exploring the efficacy of faculty development activities in relationship to their impact on student learning," **Gayle, Randall, and Langley (n.d.)** developed a Faculty Development Model for SoTL. Predicated on the "assumption that faculty learning precedes student learning [and] has different characteristics than student learning (p. 6), the model identifies three developmental phases, as well as three stages (i.e., places where individuals consolidate learning and use their knowledge to engage in activities of the next phase of the development model).

This place of consolidated and communal learning has been popularly labeled, the Teaching Commons (Huber & Hutchings, 2006). Collegial interaction and support is “necessary to promote and sustain the learning required for this transformation in the way faculty members think about the practice and profession of teaching in higher education and about their work as teachers” (Smith, 2001, p. 61).

Gayle, Randall, and Langley’s model delineates their “teaching community” among and between three phases and stages; specifically, in phase one, faculty adopt the role of learner and engage in “learning about one’s teaching;” as they begin questioning their teaching practices, they engage in the “hypothesizing about your own teaching” bridging stage before moving into phase two: growth in scholarly teaching, characterized by faculty exchanges about scholarly teaching and learning within, across, and beyond their discipline and even their institution (p. 3). This phase’s commitment to teaching excellence and willing application of new knowledge bridges into “problematizing your teaching” and ultimately phase three: growth in the scholarship of teaching and learning. In the final bridging stage, experimentation, faculty members search for theoretical models and recognize methodological pluralism. Finally, “at the heart of [this model] is the Scholarship of Teaching and Learning Transformation. If faculty learners make it to this end state, the faculty member is dedicated to creating a teaching commons so that teaching becomes public property of the community and student learning enhancement is a daily activity for active and engaged professors” (p. 4). Additionally SoTL can go beyond faculty development efforts and “lead to involvement either individually or institutionally in national or international higher education initiatives” (Dewar, 2008, p. 21).

SoTL as transformative community builder

In “Building the Teaching Commons,” Huber and Hutchings (2006) conclude:

There is much to be encouraged about in the work by individual scholars and campus and disciplinary groups that have taken on tough questions about learning and teaching, leading to intriguing new evidence, insights, and materials. Even so, the scholarship of teaching and learning remains a fragile movement; most faculty do not (yet) know about it or tap into its increasingly rich networks and resources. The question, then, is how to encourage larger numbers of people to expand their pedagogical imaginations and enrich their classroom practice. (p. 27)

I believe SoTL as methodology and as faculty development allows us to generate a limitless array of questions, worthy of study, that can be collectively explored by a community of scholars, within a Teaching Commons, and whose findings can impact and transcend disciplines, research paradigms and even national borders.

We have only to examine our past (e.g., Carnegie Foundation’s KML, Visible Knowledge Project) and present SoTL initiatives (e.g., International Collaborative Writing Groups, ISSOTL 2012) to “envision the possible” future for SoTL and higher education. The VKP, a network of approximately 70 faculty from 20 U.S. colleges, was not just a

collection of individuals asking similar questions in parallel; it was a community of scholars engaged in a collaborative inquiry. . . . The interactive and collaborative nature of the project was most valuable to each participant in managing the uncertainty and destabilization that came from looking so closely at learning in new

contexts. What this suggests to us is that, along with this new paradigm for learning we need perhaps a *new paradigm for inquiry*, for sharing knowledge about teaching and learning." (Bass & Eynon, 2009, p. 28)

At the heart of these programs are the collaborative opportunities for participatory learning and genuine engagement made possible across disciplinary and even national boundaries by a "common language" in the form of the scholarship of teaching and learning. From my own faculty and faculty development perspective, I have experienced and witnessed the power of these transformative dialogues. Having just returned from IISSAM faculty development institute, I was again struck by the energy generated by cohorts of scholars representing diverse disciplinary and methodological backgrounds. As a communication scholar I am always "struck" by the power of SoTL to transcend various learning and language communities and to provide a "universal translator" capable of the co-construction of new knowledge, especially across disparate fields.

I am not alone in this observation, "Engaged scholarship holds out the hope of enriched ways of talking and better forms of knowledge," (Deetz, 2008, p. 295) as it has three interactive moments—understanding, reflection, and invention. His engaged communication conclusions are equally applicable to SoTL research where "we are often more multilingual because of more cross-community contact, and we may have more radical vocabularies because of our time for reflection. . . .The interplay of different logics and language systems allows a more complicated world and pulls on invention" (p. 296).

This level and type of transformation will take time, as will the building of a learning community and its inventive languages and plurality of methods designed to address an increasingly complex and diverse array of questions regarding our teaching and our students learning. And there will continue to be challenges, particularly as we extend into new disciplinary fields and transcend national borders. Hutchings, Huber, and Ciccone (2011) remind us that the scholarship of teaching and learning "is not only a U.S. phenomenon. As the movement has grown, so too have connections between pedagogically engaged scholars around the world" (p. xiii). As the SoTL community continues to explore building its community under a "Big Tent" (Huber, 2012), we may be challenged to reflect more deeply on what SoTL is and what it is not—while I believe SoTL has tremendous generative, transformational powers, it cannot represent all things (e.g., assessment, scholarly teaching) to all people.

Elton (2000) has argued that the scholarship of teaching and learning is not just about doing good things better, it's also about doing better things. I believe SoTL as generative heuristic methodology provides a "new paradigm for inquiry" (Bass & Eynon, 2009), and SoTL as faculty development equips us with the necessary tools and collegial support for "building knowledge as a community" (p. 28); together, they generate the potential for SoTL as transformative community builder, capable of producing a knowledge network and educational scholarship that informs our instructional practices and evidences in very visible ways our students' learned knowledge.

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