From Research to Learning: Introduction

Dᴀᴠɪᴅ W. Cᴏɴᴄᴇᴘᴄɪóɴ
Ball State University

There are at least two interesting ways to make sense of the collection of essays in this volume. The first is in the steps the authors take to develop and evaluate teaching innovations. The second is in the research methodologies embodied in the essays.

Teachers are scholarly when they use the insights gained by studying research on teaching to innovate in ways that help their students learn more effectively. This process, from research to learning, has at least five steps. Typically, practicing teachers are driven to research when they notice that some number of students are struggling with an aspect of a course. Scholarly teachers often begin by understanding the nature of the problem. This involves 1) reflecting carefully about student behavior to understand what the nature of the difficulty is. Once a scholarly teacher has an appropriate understanding of a difficulty students are having, the teacher will 2) examine the published evidence and theory regarding particular ways to help students successfully move through that difficulty. With new expertise in hand, a scholarly teacher will 3) develop an innovation designed to help students be more successful. The innovation may be focused in one or more of a number of areas; a teacher might adjust 3a) learning objectives, 3b) assignments, 3c) in-class activities, 3d) assessment practices, 3e) course policies, or even more fundamentally, how one conceives of, and facilitates, 3f) teacher-student or 3g) student-student interactions. A change in any of these areas may be rather small (e.g., allowing more/fewer absences or adding one assignment) or large (e.g., doing away with an attendance policy altogether or replacing all high stakes assignments with smaller daily work). While and after implementing the change, a scholarly teacher will 4) carefully assess the impact the innovation has on student success. Finally, in light of how students do with the innovation, a scholarly teacher will 5) refine the plan for future iterations or decide that it didn't work and begin the process again. Of course, during any of these steps a scholarly teacher may confer

with students or colleagues, formally (peer-review) or informally (discussions) to improve the quality of the work, or return to relevant literature for further study.

Scholarly teaching is distinguished from the scholarship of teaching and learning (SoTL) in that SoTL researchers submit their insights regarding some aspect of teaching and learning to peer-review for eventual dissemination in a public venue.[1] As a study of teaching builds toward peer-reviewed dissemination, a researcher will use one or more research methodologies.

For a variety of reasons that have to do with accidents of histories within and between disciplines and institutional power and reward systems, contemporary SoTL is dominated by researchers who use any of a variety of social science methodologies. It has been important for many investigators, especially those in teaching fields who use qualitative methods and very small sample sizes, to insist that they are conducting traditional disciplinary research and not merely reflecting on their practice for individual classroom improvement. Many people believe that research on teaching that does not involve social science methodologies is not really research. As a result, perhaps we can understand why there is a misperception that SoTL must involve empirical data production and analysis. But it simply is not true that SoTL requires the use of social science methodologies and the presentation of empirical data.

The mistake of those who believe that non-social science research isn't research is that they wrongly assume that the absence of social science research methodology is the absence of research methodology all together. There is a distinction between research on teaching and learning and innovation in the classroom, even if the activities of a particular teacher-scholar are sometimes simultaneously both. Indeed, some scholarly teachers employ social science research methodologies simply to reflect on their courses when they have no intention of disseminating any of the results of their study. However, research involves the careful deployment of a research methodology. In the end, I believe a necessary condition for good SoTL is that it employ a research methodology, be it a social science, humanities, or other type of methodology.

This necessary condition for good SoTL is particularly important for philosophers for two reasons. First, when we encounter dismissive, gate-keeping colleagues within philosophy (e.g., those philosophers who think SoTL is not real scholarship) or without philosophy (e.g., those insisting on social-science methodology), the ability to point to the parallels in methodology between good SoTL and good traditional sub-disciplinary research allows SoTL practitioners to argue compellingly that our research on teaching is legitimate. Would that it were not the case that SoTL researchers need to make such arguments, but at least we have this argument on our side. Second, the use of an accepted research methodology allows us to make sense of our work on teaching and learning as apt for peer-reviewed dissemination, since philosophy colleagues can evaluate

the relative merits of our application of one of philosophy's various research methodologies. I understand write ups of reflections on teaching that are limited to "here's-a-thing-I-do-that-I-think-works" as valuable work of scholarly teachers, but not high quality SoTL.

While too numerous to catalog, among the research methodologies use by philosophers are: A) theory creation, B) hermeneutical, logical, or some other analysis of existing research, C) application of an existing theory to a new case, D) arguing that X (a view, or interpretation) is superior to Y. Of course, often more than one method is intermingled in a single work and there is great variety within each category. Finally, E) social science methodologies (e.g., pre-/post-tests) are employed by philosophers conducting SoTL research as well.

The essays in this volume represent the full range, and the intermingling, of these methods in the investigation of teaching and learning. Daugs emphasizes theory creation (method A). Thorson, Marcus, Loftis, and Mills analyze specific innovations (method B). Thorson, Marcus, Loftis, Mills, Harrell, and Walsh all apply existing theory to new settings (method C). While Daugs and Thorson do to some degree, Marcus, Loftis, and Mills develop robust, non-empirical arguments (method D). Mills, Harrell, and Walsh use social science methodologies and present results (method E). With these short comments about research methodology in hand, let us discuss the steps the authors take to develop and evaluate teaching innovations.

Gwen Daugs's essay, "Rancière and Pedagogy: Knowledge, Learning, and the Problem of Distraction," creates new theory. Daugs uses Rancière's insights to diagnose a widespread learning problem: Why is it that students are so distracted? Daugs moves beyond Rancière's claim that teachers should assume that students are as intelligent as teachers to claim that teachers should strive to make learning more pleasurable for their students. This essay has at least two aspects that are especially noteworthy. First, it contains contrasts of Rancière to Chikzentmihaly, Friere, and hooks. Second, Rancière's work is interestingly orthogonal to what might be called the standard conceptual map of twenty-first-century, Anglo-American teaching and learning scholarship. I anticipate that regular readers of *Studies in Pedagogy* will be frustrated by Rancière in ways that should inspire profitable reflection.

Juli K. Thorson applies pedagogies that are used frequently in other fields to philosophy. She assumes that high quality assignments fulfill certain desiderata. After describing what is desired, she details the assignments to illustrate the power of various visual representations in helping students learn. Aware of the gender implications, and the embedded assumptions regarding educational constructivism in collaborative learning exercises, she explains how to help students, in groups, build concept quilts. Additionally, she develops novel learning activities that assist students as they attempt to visually represent the central aspects of argumentative papers.

Russell Marcus applies Vygotskian theory to the task of creating new assignments and in-class activities. Suppose people who are attempting to initially acquire a new skill learn best by giving focused attention to the individual components of the skill as they attempt to perform the skill as a whole. To keep such learners in the zone of proximal development, it is important to provide them with learning activities that work on finer-grained aspects of the larger skill. Marcus includes full versions of the assignments he uses for readers' consideration as he explains why and how he uses them. His thoroughness has the effect of providing very concrete advice, which is especially valuable for inexperienced teachers, while simultaneously giving more seasoned scholars of teaching and learning an opportunity to analyze their own attempts to develop fine-grained assignment by comparing and contrasting their work with Marcus's. It is no small achievement that this paper is valuable to both novice and expert scholarly teachers.

Andrew P. Mills evaluates the impact of what he calls the "Menu Approach." Adapted from Weimer,[2] in Mills's Menu Approach students have both a wide range of types of assignments and the opportunity to earn far more points than are required to earn an "A" in the course. Grounded in the notion that there are many means to the achievement of most learning goals, students choose which and how many assignments to complete, and thus how many points they attempt to earn. Mills provides both philosophical arguments and empirical data. Relying on research on motivation, his argument for the Menu Approach is supported by the claim that it is the type of system that increases student time on task. His study confirms this general finding; students in his classes do more work when he uses the Menu Approach. The fairness with which he presents objections to his view is a model of healthy philosophical modesty. Readers interested in contrasts to Linda Nilson's *Specifications Grading* will find this essay especially rewarding.[3]

J. Robert Loftis argues that the consideration of three senses of fairness entails that philosophy teachers' assessment practices should include multiple choice questions (MCQs). Loftis assumes, rightly I think, that most philosophers believe MCQs are largely inappropriate in philosophy courses because they are incapable of assessing what philosophers care about (e.g., analyzing arguments). Loftis attempts to rehabilitate MCQs in the eyes of philosophers by importing a revised Bloom's taxonomy and detailing how to construct questions that drive students to higher levels of thinking than mere memorization. The essay quickly affirmatively answers the empirical question—Can MCQs measure more than rote learning?—to focus on the normative question—Should philosophers include MCQs in their assessment regimes? Using a traditional philosophical research methodology of arguing for the plausibility of a normative claim by presenting a justification of the claim and then rebutting criticisms of it, Loftis concludes that almost all philosophy courses should include MCQ as part of their assessment

regime. Anyone who counts themselves among the philosophers who avoid, or reluctantly use, MCQs will profit by attending to Loftis's arguments.

Using pre- and post-test data, Maralee Harrell measures the impact of a systemic shift to problem-based learning (PBL) when seeking to help engineering students improve their moral reasoning skills. The statistically significant data she generates suggests that a semester long course using PBL can produce significant gains in students moral reasoning abilities, as measured by Engineering and Science Issues Test.[4] The primer on PBL in the main text and the description of two weeks of assignments in the appendix should allow readers to easily imagine how they might implement a PBL-based unit into any class.

Julie Walsh, Sara M. Fulmer, and Sarah Pociask use pre- and post-test studies to assess the impact of a peer-mentorship program where senior philosophy majors work with introductory-level students' to improve the introductory students' ability to write philosophical essays. This win-win-win program has a positive impact on introductory students, senior philosophy majors, and the philosophy department itself. The insights regarding how to overcome expert/novice differences in ways that are extremely beneficial to the novice that are offered in this essay extend well beyond the specific program the authors describe.

While the annotated bibliography can be read in the typical way—skimming the titles and then reading the annotations that are of interest—it is constructed as an essay, and not merely a list. It has an argumentative through line. It begins by arguing for a particularly positive way to approach research to enhance student learning. Then it takes readers through research that focuses on making lectures more active to extremely engaged pedagogies. The annotated bibliography, and all of the essays in this volume, serve as inspiration and fodder for all philosophy teachers as we strive to improve our practices.

Notes

1. For more on the distinction between scholarly teaching and the scholarship of teaching and learning see Allen and Field, "Scholarly Teaching and the Scholarship of Teaching: Noting the Difference"; Boyer, *Scholarship Reconsidered* (especially pp. 23–25); Hutchings and Schulman, "The Scholarship of Teaching: New Elaborations"; Martin, "Defining the Scholarship of Teaching"; and Richlin, "Scholarly Teaching and the Scholarship of Teaching."

2. Weimer, *Learner-centered Teaching*.

3. Nilson, *Specifications Grading*.

4. Borenstein et al., "The Engineering and Science Issues Test."

References

Allen, Marion N., and Peggy Anne Field. "Scholarly Teaching and Scholarship of Teaching: Noting the Difference." *International Journal of Nursing Education Scholarship* 2(1) (2005). https://doi.org/10.2202/1548-923X.1094

Borenstein, Jason, Matthew J. Drake, Robert Kirkman, and Julie L. Swann. "The Engineering and Science Issues Test (ESIT): A Discipline-Specific Approach to Assessing Moral Judgment." *Science and Engineering Ethics* 16(2) (2010): 387–407. https://doi.org/10.1007/s11948-009-9148-z

Boyer, Ernest. *Scholarship Reconsidered: Priorities of the Professoriate* (1st edition). New York: Jossey-Bass, 1990.

Hutchings, Pat, and Lee S. Shulman. "The Scholarship of Teaching: New Elaborations, New Developments." *Change: The Magazine of Higher Learning* 31(5) (1999): 10–15. https://doi.org/10.1080/00091389909604218

Martin, Lynn. "Defining the Scholarship of Teaching versus Scholarly Teaching." *Teaching and Learning in Higher Education* 46 (Spring 2007): 1–3. https://www.stlhe.ca/wp-content/uploads/2011/06/STLHE-Newsletter-46-2007-Summer.pdf.

Nilson, Linda. *Specifications Grading: Restoring Rigor, Motivating Students, and Saving Faculty Time*. Sterling, VA: Stylus, 2015.

Richlin, Laurie. "Scholarly Teaching and the Scholarship of Teaching." *New Directions for Teaching and Learning* 2001(86) (2001): 57–68. https://doi.org/10.1002/tl.16

Weimer, Maryellen. *Learner-centered Teaching: Five Key Changes to Practice*, 2nd ed. San Francisco: Jossey-Bass, 2013.