The Scholarship of Teaching and Learning in Higher Education: An Annotated Bibliography

Pat Hutchings, Chris Bjork, and Marcia Babb,
The Carnegie Academy for the Scholarship of Teaching and Learning
The Carnegie Foundation for the Advancement of Teaching

In 1998, The Carnegie Foundation for the Advancement of Teaching launched an initiative known as CASTL: the Carnegie Academy for the Scholarship of Teaching and Learning. Through its higher education program, cofunded by The Foundation and The Pew Charitable Trusts, CASTL aims to advance the development of a scholarship of teaching and learning that will

1. foster significant, long-lasting learning for all students;
2. enhance the practice and profession of teaching; and
3. bring to faculty's work as teachers the recognition and reward afforded to other forms of scholarly work.

We compiled this bibliography to acknowledge the work that CASTL builds on, and to locate this new effort in the longer trajectory of related developments. It has two sections. The first, a definitional one, includes significant statements about the idea of the scholarship of teaching and learning, drawn from various traditions that contribute to its evolving conception. The second section points readers to resources that may assist them in performing the scholarship of teaching and learning.

Section I: Defining the Scholarship of Teaching and Learning


Boyer argues that if higher education is to meet its full range of responsibilities the concept of scholarship must be broadened to include not only basic research but other kinds of intellectual work in which faculty engage. Toward this end, Boyer proposes four types of scholarship: discovery (traditional, basic research); integration (including such work as textbook writing, or synthetic reviews of literature in the field); application (professional service, or outreach, which draws on scholarly expertise); and teaching. For many educators, it was this Carnegie report that introduced the phrase “the scholarship of teaching.”


“Critically reflective teaching happens,” Brookfield tells us, “when we identify and scrutinize the assumptions that undergird how we work” (xii). He suggests four “lenses” for getting at and investigating these underlying (and often problematic) assumptions, including teacher autobiography, the perspective of students, the perspective of colleagues, and the theoretical literature on pedagogy. Brookfield does not use the term scholarship of teaching, but his vision of teachers interrogating their own practice overlaps with emergent meanings of the term.


Arguing that faculty might usefully investigate their own practice and students’ learning, Cross and Steadman provide three extended case studies of how such investigations might be undertaken, along with a culminating chapter on “Designing Your Own Classroom Research.” The opening chapter situates classroom research and the scholarship of teaching in the larger context and traditions of research on teaching and learning.


This sequel to Ernest Boyer’s Scholarship Reconsidered provides a framework of six standards for evaluating the range of scholarly work that faculty undertake—be it basic research, applied work, or teaching. The six standards are: clear goals, adequate preparation, appropriate methods, significant results, effective presentation, and reflective critique. Particularly in the emphasis on reflective critique, Scholarship Assessed moves toward a view that the scholarship of teaching is more than excellent teaching, suggesting that it also entails practices that lead to new understandings on the part of the teacher, subject to peer review by colleagues.


In this collection of essays, 10 sets of disciplinary scholars respond to an orienting essay that raises questions about the history of discourse about teaching and learning in the disciplines, the ways in which disciplinary “styles” influence inquiry into teaching and learning, and the nature and roles of disciplinary exchange. In presenting their own field’s “sounds and silences,” the authors hope to contribute to a common language for trading ideas, enlarging our pedagogical imaginations, and strengthening our scholarly work.


This volume describes nine strategies through which faculty may make their work as teachers available to one another—be it for individual improvement, for building the collective wisdom of practice in the field, or for personnel decision making. Illustrated by reports from faculty who have used them, these strategies include teaching circles, reciprocal classroom observations, team teaching, and external peer review. All of these are predicated, as the opening chapter points out, on a
view of teaching as scholarly work. Three corollaries unify this vision: teaching as a process of ongoing reflection and inquiry; the need for collegial exchange and publicness; and faculty’s professional responsibility for the quality of their work as teachers.


As the title suggests, this article addresses how the concept and practice of the scholarship of teaching has evolved, most recently in the context of the Carnegie Academy for the Scholarship of Teaching and Learning, since the idea of the scholarship of teaching first appeared in the early nineties.


The first in a series, this working paper frames key questions to be addressed in rethinking and restructuring faculty careers in a rapidly changing, democratic America.


The reason teaching is not move valued in academe, Shulman argues, is not because campuses don’t care about it but “because the way we treat teaching removes it from the community of scholars” (6). Thus, he calls for teaching’s reconnection to the disciplinary and professional communities in which faculty pursue their scholarly work—a change that would require faculty to document their pedagogical work and put it forward to their peers for review: “We need to make the review, examination, and support of teaching part of the responsibility of the disciplinary community” (6).


Based on a presentation to the American Association for Higher Education (AAHE) at its 2000 annual meeting in Anaheim, CA, this article was published in the first issue of the Journal of the Scholarship of Teaching and Learning, a web-based interactive journal. In justifying the pursuit of the scholarship of teaching and learning, Shulman proposes three rationales: professionalism, pragmatism, and policy. Scholarship of teaching and learning, he writes, supports an educator’s individual and professional roles, practical responsibilities to students and institution, and social and political obligations to those who support and take responsibility for higher education.

Section II: Resources for Faculty Undertaking the Scholarship of Teaching and Learning


This hefty but well organized, user-friendly volume suggests strategies that faculty can use to collect feedback from students in order to assess the effects of their teaching and to make appropriate adjustments. Each strategy is illustrated with examples from a range of disciplines. This volume operates on the premise that faculty can use classroom assessment and classroom research to answer their own questions about their own students’ learning.


In keeping with the development of a scholarship of teaching and learning, Barr and Tagg call for a shift from an “instruction paradigm” (which they believe characterizes most of higher education) to a “learning paradigm” in which all aspects of the institution’s work would be driven by and assessed in light of impact on student learning. “The learning paradigm envisions the institution itself as a learner—over time, it continuously learns how to produce more learning with each graduating class, each entering student” (13). This is not a “how-to” piece but it may provide a helpful framework for action by faculty undertaking the scholarship of teaching and learning.


Bernstein coined the phrase “teaching circles” and established their use at the University of Nebraska. This piece deals not with the mechanics of teaching circles but with their place in a larger set of departmental activities and practices, both formative and summative. Bernstein describes a longitudinal, multi-year process, which begins with the creation of a climate in which there are regularly scheduled occasions for peer conversation and interaction about teaching issues.


This book-length report summarizes important developments in the science of learning. Accessible to a nonspecialist audience, the book examines such topics as differences between novices and experts; conditions that improve students’ abilities to apply knowledge to new circumstances and problems; the design of learning environments; and teacher learning. It provides a thorough grounding in contemporary theory and research, and highlights important implications for teaching. The book is available online: <http://books.nap.edu/html/howpeople1/>.


Cambridge argues that learning is the chief goal of teaching and that faculty can thus assess teaching through analysis of student work. She is particularly interested in the power of involving students in this process, and describes three practices that bring together faculty, faculty peers, and students as partners in examining and assessing teaching and learning. Both student and teacher portfolios play a role in what Cambridge proposes.


One of the strategies campuses might use to foster a scholarship of teaching (and one that is proposed in some of the literature from The Carnegie
Academy) is the “teaching academy,” defined by Chism and colleagues as “a group of faculty who are considered excellent or highly interested in teaching and who have been tapped by their institutions to engage in advocacy, service, or advising on teaching matters” (25). The authors briefly summarize examples from 10 campuses, and describe in detail an eleventh, The Ohio State University. At its best, the teaching academy model seems to be a structure for support of the scholarship of teaching, for instance when (as the authors report of some examples) goals include the creation of community among teachers and the fostering of research on college teaching and learning.


Coppola asserts that the act of writing out a statement of one’s teaching philosophy clarifies one’s purposes and guides one’s choices. He presents a strategic set of practical and philosophical guidelines for crafting a statement, and uses examples from authentic statements to illustrate the categories and ideas. Though Coppola is a professor of chemistry, experienced and novice educators in all fields will find this readable and useful as a way of examining one’s teaching practice.


A rare look at the unfolding of the teaching and learning process over the course of the semester, this volume is especially pertinent to the second component of course portfolio design and to the scholarship of teaching and learning that looks at the ongoing interactions of a course. Additionally, Duffy and Jones recount their use of portfolios as a dynamic tool for faculty development—a way of charting the progress and impact of classroom assignments and activities.


Readers will find in this spiral-bound “workbook” a collection of materials, examples, and tasks developed through a multi-university national project on the peer review of teaching. Faculty seeking to examine their teaching practices may be especially interested in the “three exercises” (tab 3), which provide a protocol for reflective writing about three components of teaching: (1) the syllabus, as a reflection of the scholarly argument behind the design of the course; (2) the activities through which that design is enacted from week to week; and (3) evidence of student learning. Many faculty in the project used their written responses to these exercises as the basis for a course portfolio; many also used them as occasions for reflection and discussion with colleagues.


This collection of essays features eight CASTL faculty who are investigating issues in the teaching and learning of their fields. Each case documents the doing of this investigative work—methods and approaches, reflection and analysis. Hutchings provides an introduction that examines crosscutting themes from the cases, and Carnegie Foundation President Lee Shulman provides a concluding chapter on the future of this work. An accompanying CD-ROM provides documents and artifacts from the cases, including syllabi, samples of student work, videotaped interviews with students, and assessment instruments.

inventio: creative thinking about teaching and learning. Fairfax, VA: Division of Instructional Improvement and Instructional Technologies (DoIIIT), George Mason University. <www.doiit.gmu.edu/inventio>.

A peer-reviewed electronic journal, inventio’s first issue in February 1999 focused on the scholarship of teaching and learning—definitions, and ways that campus practices, policies, and conditions work for or against a scholarship of teaching. In the Spring of 2001 the first national issue addressed disciplinary boundaries in the scholarship of teaching and learning. Future issues will feature articles related to excellence in learning and teaching. Past issues are archived and accessible at the inventio web site.


Leamnson, a professor of biology, makes a compelling and easy-to-read case that new discoveries about the biological basis of learning have important implications for all teachers in higher education. He lays out the biological evidence; a new brain model of learning that developed from the evidence; the role of emotional involvement in learning; and the implications he sees in all of this for designing a pedagogy that produces learning. The article is adapted from Leamnson’s Thinking About Teaching and Learning: Developing Habits of Learning with First Year College and University Students (1999).


Morehead and Shedd argue that rich information from students, about their learning from and their experience of a course, is a key source of evidence that should be used to document and review teaching. Additionally, the authors document their own use of interviews as grist for rethinking and reshaping practice.


Believing that good practices of good faculty should be made public, Nelson has created a selective and rich collection of resources for understanding and doing the scholarship of teaching and learning. His groupings and annotations are idiosyncratic, based on years of teaching, and a deep commitment to pedagogy and student learning. This is a useful site for teachers wondering how to begin investigating their teaching practice, as well as for those looking for a resource on a specific topic.


Originally published in 1970, this landmark book established a framework for characterizing cognitive development across genders and cultures which has remained the cornerstone for much of the student-development research that followed. Perry uses a nine-stage model that moves students from a simplistic, categorical view of knowledge to a more complex, contextual view of the world and themselves. His work shows that the nature of intellectual development rests...
as much on the processes educators use as on the content.


Having proposed the idea of the pedagogical colloquium in an earlier piece (“Teaching as Community Property,” above), Shulman suggests three protocols for its conduct. “One of the puzzlements about the pedagogical colloquium,” he writes, “is what, exactly, we would want the candidate to talk about” (6). He then presents three possible models: the course narrative, in which the candidate explains the shape or “argument” of a selected course/syllabus; the colloquium in which the candidate talks about how to teach a key concept or idea in the field; and the dilemma-centered colloquium, in which the candidate reflects publicly on some problematic aspect of teaching—e.g., the right balance between breadth and depth. These models might be useful frameworks for inquiry in a variety of settings—not only faculty hiring.


Shulman adapted this article from an address he gave at the AAHE National Conference on Higher Education in Washington, DC, March 1999. To take learning seriously, Shulman says, one must create a scholarship of teaching in which the successes of learning are professed, understood, and enhanced, and its pathologies treated. He describes the pathologies as amnesia, fantasia, and inertia: “we forget, we don’t understand that we misunderstand, and we are unable to use what we learned” (12). Shulman proposes that these pathologies of learning can be remedied through scholarly investigations of teaching practice that may be exchanged and built upon to foster deep and lasting learning by students.


This book provides both an exploration of the meaning of “understanding” and a process for designing curricula and assessments to enhance understanding. The authors propose that educators work backwards when planning a course or unit of study, starting as a first step with learning objectives, followed by a determination of what evidence of student understanding will be required, and then what knowledge and skills will be needed to provide evidence of understanding. They offer six indicators of student understanding for teachers to use in the design process: explanation, interpretation, application, perspective, empathy, and self-knowledge. The book provides concrete, practical ideas for curriculum, assessment, and instruction. A companion workbook is online: <www.ascd.org/readingroom/books/mctighe99toc.html>. 