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Higher-ed movement aims to elevate teaching

Will the 'scholarship of teaching and learning' drain research resources or step up teaching practices?

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"The teaching and learning of one's own discipline or profession is itself a kind of living laboratory."

*Lee Shulman
Carnegie Foundation*

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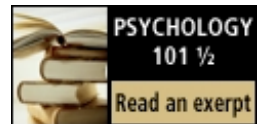
Smack in the middle of the debate over the necessity of tenure, and the publish or perish climate it fosters, is a controversial concept that's gathered increasing steam: the scholarship of teaching and learning, or SoTL.

First proposed in 1990 by former Carnegie Foundation President Ernest Boyer in an influential document called "Scholarship Reconsidered: Priorities of the Professoriate," SoTL differs from teaching per se in that it emphasizes teaching and learning as legitimate areas of scholarship, says psychologist and Carnegie Foundation President Lee Shulman, PhD, a prominent spokesperson for the idea. This scholarship can take many forms, ranging from simple critical observation of classroom patterns, to use of classroom data to try out new classroom interventions, to research that compares testing methods to see which best fosters learning. Because it is difficult to conduct randomly controlled trials in the area, Shulman notes, SoTL can sometimes look more like clinical case studies in medicine than traditional scientific research.

While some faculty and administrators extol the model's virtues, maintaining it will help improve the quality of teaching and learning nationwide, others are concerned it could rend the fabric of higher education. These critics are concerned SoTL could lower the bar by placing more emphasis on what goes on inside the classroom than on what academic research can offer the outside world.

In response, Shulman, a longtime academician and researcher first at Michigan State University, then at Stanford University until he joined Carnegie in 1998, says SoTL provides its own bona fide academic contributions: "The basic notion is that the teaching and learning of one's own discipline or profession is itself a kind of living laboratory, a setting in which all sorts of intriguing, researchable questions quite specific to the discipline or profession develop," he says. "Since those of us in academia are engaged in teaching, evaluation and course design all the time, it becomes a natural and very attractive place to conduct a lot of our research."

The model's central aim, adds Shulman, is to improve the quality of teaching and learning in college classrooms and departments



across the country and eventually to disseminate it more widely. It encourages professors to become more active, critical examiners of their own teaching process and how it affects student learning, and it puts a focus on inner-disciplinary endeavors, with, for example, chemistry professors sharing knowledge with other chemistry professors, in keeping with the model's developing view that each discipline contains a unique language and teaching methodology.

In addition, though, SoTL advocates for interdisciplinary exchange so that professors of all stripes can learn from each other's methods and ramp up the level of knowledge in the area, Shulman says. Under the current academic structure, he and advocates argue, professors too often get locked in their own scholarly bubbles and seldom are adequately evaluated or have the chance to communicate with peers about teaching triumphs and failures. Shulman feels so strongly about the importance of improving this picture, he says, that he'd like to see SoTL become part of every doctoral program.

Research questions

The idea of SoTL has been realized in more concrete terms since Shulman took over the Carnegie helm. The tenets of "Scholarship Reconsidered" and of a follow-up report, "Scholarship Assessed: Evaluation of the Professoriate" published in 1997, have been incorporated into a project called the Carnegie Academy for the Scholarship of Teaching and Learning (CASTL). Made up of three programs that are supported by small grants and networking opportunities--one for scholars, one for campuses and one for scholarly and professional organizations--CASTL aims to foster SoTL concepts across these arenas through research and other activities. Some 200 colleges and universities nationwide are involved in the program, as are roughly 150 Carnegie-funded scholars.

In addition, campuses nationwide are seizing on SoTL ideas whether or not they are CASTL participants, and they are debating or incorporating them with varying degrees of intensity.

In the process, SoTL has created some serious rifts on or between campuses. There are several reasons why: SoTL tends to divide faculty who believe teaching is undervalued from those who see research as a university's central calling. It also divides researchers who want to maintain their funding from administrators who might emphasize teaching more than research to address the wishes of students, parents and politicians.

Indeed, the place and role of research is one of the central issues that inflames critics of SoTL. If SoTL takes off, they fear it will diminish the energy and money invested in, and therefore the quality of, research.

"The problem is that, in many universities, initiatives promoting teaching and learning are siphoning off much-needed support for core academic programs," says Jay Moore, PhD, a professor of psychology and behavioral researcher at the University of

Wisconsin-Milwaukee. "Thus, teaching and learning are being supported instead of scholarly activities, rather than in addition to core scholarly activities." Instead, Moore would like to see these activities added on to existing workloads if people feel so inclined, rather than taking away from existing resources.

Others fear that faculty who heed the SoTL call will--for the sake of perceived tenure pressure from administrators who favor the concept--undertake endeavors that not only take away from original work in their area of expertise, but produce low-level findings that don't contribute to scientific, literary, cultural or artistic understanding.

"If [SoTL scholars] produce meaningful enough results to quality for peer review and publication in educational research journals, then I'm impressed," says Curt Burgess, PhD, an associate professor of psychology at the University of California, Riverside (UCR) and a memory and language researcher who designs computer models that examine language comprehension. "But if the goal is to literally allow thousands of faculty to do this kind of research and have it count toward merit promotions--let's face it, only a minute proportion of that research is ever going to be published in quality journals."

Burgess also is concerned that SoTL practitioners will unwittingly strive for results that make their teaching look good, in the manner of "teaching to the test." There's also the problem that some faculty--particularly those in harder science areas--are inadequately equipped or ill-suited to conduct the SoTL-type assessments now required for accreditation, according to Henry L. Roediger III, PhD, professor of psychology and researcher of memory and learning at Washington University in St. Louis. Consider an aeronautics professor who lands robots on Mars, for example, but is completely unknowledgeable about and uninterested in social-science methodology that would help him assess his classroom performance, he comments.

Finally, for Burgess, the worst-case outcome for a SoTL-steeped academy is an overall diminution of the societal gifts that research has to offer. "I'd like to see people go for five minutes without the benefits that technology has created," he says.

SoTL advocates respond

Confronted with such concerns, Carnegie advocates maintain that SoTL is not intended to absorb all of a professor's attention, but is simply a new way to view and conduct teaching that can be used to a greater or lesser extent depending on one's time and scholarly needs.

Indeed, it would be a mistake for most university scholars to jump full tilt onto the SoTL bandwagon, adds psychologist Daniel Bernstein, PhD, himself a Carnegie scholar who left a traditional research career in human motivation and learning to pursue the scholarship of teaching and learning full time. "You don't want it to become the gorilla in the room," Bernstein says. "Not everyone can become a researcher in education, nor should they be. There are

plenty of people doing that already." What is optimal, says Bernstein, who now directs the Center for Teaching Excellence at the University of Kansas, is for professors to realize they are already doing scholarship-related work.

"What I'm suggesting is that you pay systematic attention to the data you're collecting on student learning each semester, learn from it and use it, without giving up your own intellectual life," he says. "If the data show you're doing a bad job and you have to change what you're doing, I believe that's an incredibly valuable track to get on."

Indeed, SoTL principles and applications are used and weighted in varying degrees at different campuses, says Roediger, noting that the Carnegie Foundation itself is responsible for classifying institutions at varying degrees of research intensity.

Psychologist A. Toy Caldwell-Colbert, PhD, is provost at Howard University, designated with Carnegie's strongest research classification. She notes that while SoTL activities are considered as part of a professor's portfolio and SoTL is viewed favorably on her campus, "We would not tenure someone solely on the scholarship of teaching," she says. "We feel they should continue to show contributions of new knowledge and excellence in their own field by publishing scholarly articles in their discipline."

If you do become inspired to dig deeper in the area, however, there is a rich array of research to guide you, says senior Carnegie scholar Mary Taylor Huber. Bernstein, for example--a Carnegie scholar since 1998 and one of four featured in a book by Huber called "Balancing Acts: The Scholarship of Teaching and Learning and Academic Careers" (forthcoming this fall from the American Association for Higher Education)--has spent the past five years conducting SoTL research on student learning and performance after a 20-year career conducting rigorous social psychology research (see [A case study in scholarly teaching](#)).

And, Huber says, the field is an exploratory and innovative one, so novel ideas are welcome. Some scientists are applying SoTL concepts in original ways, without being connected to the Carnegie movement. APA President-elect Diane Halpern, PhD, a psychology professor at Claremont McKenna College who studies gender differences in cognition and education, and graduate student Amanda Saw, for instance, are designing a Web site that interactively demonstrates psychological principles shown to enhance learning (<http://berger.claremontmckenna.edu>).

Halpern's mission is an unconventional one that fits into SoTL's philosophy: translating existing learning theory and research for actual learners, rather than conducting new research. "It's one of the most pressing problems cognitive psychologists and learning scientists can address," she maintains. "All of the big questions in science and society depend on our ability to learn efficiently and think critically."

In fact, some of the most ardent empiricists are engaged in work that looks a lot like the scholarship of teaching and learning.

Roediger, for example, just received a five-year grant from the James S. McDonnell Foundation in which he and colleagues at the University of California, Los Angeles, the University of New Mexico and Duke University will compare several testing strategies to see which ones best foster student learning.

Meanwhile, Burgess favors a combined teaching and research strategy that involves students in one's own research. At UCR, he takes this a step further by helping his students design and conduct their own studies, then encouraging them to enter undergraduate research conferences and publish their studies.

"I end up with a fair number of students who go on to get excited about research," he says.

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