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**Feature Essays: The Scholarship of Teaching and Learning: A Personal Account and Reflection**

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Abstract

Excerpt: One of my favorite stories about teaching recounts the conversation between an aging Jewish schoolteacher in Poland (a “melamed” in Yiddish) and his wise wife. It is late in the evening and they are sitting quietly before bedtime. “Sarah, I’ve been thinking about something really interesting. Do you realize that if I were the Czar, I would be richer than the Czar?” Sarah, having lived with his ruminations for many years, sighs....

Keywords
Scholarship of teaching and learning, Carnegie Academy for the Scholarship of Teaching and Learning Scholarly teaching

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The Scholarship of Teaching and Learning: A Personal Account and Reflection

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One of my favorite stories about teaching recounts the conversation between an aging Jewish schoolteacher in Poland (a “melamed” in Yiddish) and his wise wife. It is late in the evening and they are sitting quietly before bedtime.

“Sarah, I’ve been thinking about something really interesting. Do you realize that if I were the Czar, I would be richer than the Czar?”

Sarah, having lived with his ruminations for many years, sighs.

“Mendele, I don’t think so. If you were the Czar, you would be exactly as rich as the Czar. How could you be richer?”

“Aha Sarah, you have forgotten an important point. If I were the Czar, I could still do a little teaching on the side!”

The attractions of that story will be obvious to anyone in higher education. For far too many of our colleagues, teaching is not the central function of an academic career. It is our “load,” the annoying obligation that interrupts our writing, and the burden we carry that brings us few of the joys of promotion, tenure and prestige. It’s what we do “on the side.”

I think the first time I told that story was in an address to a meeting of the American Association for Higher Education (whose passing I continue to mourn). Russ Edgerton and Pat Hutchings had brutally abducted me from a contented career in the worlds of teaching and teacher education in K-12. They persuaded me that my work on pedagogical content knowledge, the uses of cases, and the development of teaching portfolios for documenting and evaluating the work of teachers would be of interest to my colleagues in higher education.

Their enticements coincided with my simultaneous service on two faculty committees at Stanford. I was chair of the University Committee on the Evaluation and Improvement of Teaching at the same time that I served (for six years) as a member of the Advisory Board, an elected committee of seven professors responsible for reviewing and evaluating every appointment, promotion and tenure decision at Stanford after the Provost’s review. These two roles were deeply contradictory in my academic life. The work of the first group was rooted in the premise that teaching was the central function of university faculty members and therefore demanded evaluations with great credibility, reliability and validity. But in the second setting, reviewing faculty for promotion and tenure, the teaching work of faculty members was always subordinated to their published record as scholars in their discipline or profession; teaching evaluations were typically ignored unless the quality appeared to be so dismal that it could be deemed “embarrassing.”

I tried to resolve this dilemma in the talk to AAHE that subsequently became the essay “Teaching as Community Property.” I argued that the two problems were closely connected. Those activities that we valued most in the Academy yielded work whose quality could be reviewed critically by our peers. Published research exemplified that principle. Teaching, on the other hand, was rarely peer reviewed. Instead, we ordinarily relinquished
that responsibility to students, who completed end-of-course evaluations of teaching that they rapidly learned were rarely read and even less frequently taken into account in formal faculty reviews. I thus concluded that teaching would never achieve anything near parity with research in the work of professors until it became more like scholarship, until it came out of the closet and was subject to peer review, that is, until it became “community property” just like our research.

As Russ, Pat and I examined these ideas, we designed a collaborative program on the peer review of teaching that gained support from two national foundations, Pew and Hewlett. We brought together faculty members from around the country who were interested in pursuing these ideas and developing new peer review practices. Among them were colleagues like Dan Bernstein from Nebraska and Randy Bass from Georgetown, who were to become collaborators and co-conspirators for many years thereafter. We all began to work together, most often under the wonderful canopy of AAHE and its programs, on trying to solve the melamed’s dilemma.

The Birth of CASTL

When I was interviewed for the presidency of the Carnegie Foundation in early fall, 1996, the chair of the selection committee asked me to describe some of the things I would love to do if offered that opportunity. One of the first dreams that I mentioned was the creation of a think tank or advanced study center for college teachers. In 1979, while still teaching at Michigan State, I had spent an idyllic year as a fellow at the Center for Advanced Study in the Behavioral Sciences at Stanford. This was an institution that was created to provide an opportunity for behavioral, social science and education scholars to dedicate a year to thinking and writing. Perhaps most important of all, the fellowship presented an occasion for participating in a community of like-minded scholars with whom one could have both serious and lighter discussions about work and about each other’s lives. Why, I asked, should such institutions only exist for individuals who had contributed significantly to excellence in only one of the three major missions of higher education—research—but not to a mission that was supposedly of equal significance, teaching.

I described to those who were interviewing me a conception of how the Carnegie Foundation might create a setting to enhance the work of scholars of teaching in ways that would improve both the quality of their teaching and the quality of the scholarship with which they investigated, experimented with, and ultimately improved their teaching. I had no idea how it might play out in any detail, how it could be financed or even what exactly I meant by “scholars of teaching.” But apparently the vision captured the imagination of the selection committee; a month later I was offered the job. There was no way I could have imagined that the center I had envisioned would eventually be built just up the hill from the Center for Advanced Study in the Behavioral Sciences, looking out over Stanford and San Francisco Bay.

So how did the vision of a think tank for teachers evolve into an institution dubbed CASTL (Carnegie Academy for the Scholarship of Teaching and Learning)? Indeed, how did an organization dedicated to “the advancement of teaching” give birth to an academy for the scholarship of teaching and learning?

I wish I could say in retrospect that my primary motivation was to ensure that in our work the act of teaching would always be closely tied to the necessarily related idea of learning. And I’m sure among my colleagues such a motivation was primary. My own recollection is far less exalted. During the period before I began full-time duties as president of the foundation, I received a number of brochures and publications on the life and work of
Andrew Carnegie from Charlie Glassick, who served superbly as interim president of the foundation immediately after Dr. Boyer’s death and continued until the foundation moved to California and I began my service. Among the materials he sent were a couple of accounts of Mr. Carnegie’s delight in building and spending a good deal of time at his Skibo castle in Scotland. I began to associate Carnegie with his castle. I began to conjure up the mental image of Mr. Carnegie’s Castle whenever I thought about creating a sanctuary for scholars of teaching. But the phrases “Center for Advanced Study of Teaching” or even the “Carnegie Academy for the Scholarship of Teaching” yielded the rather bland acronym CAST. That is, until one of my colleagues, perhaps Pat Hutchings or Mary Huber, suggested that this was an opportunity to put teaching and learning together even though they remained separated in the title of our institution. And suddenly, Carnegie’s CASTL was born.

We were often asked why the name of our institution was The Carnegie Foundation for the Advancement of Teaching and not “for the advancement of teaching and learning.” The historical reason is quite clear. The foundation was not originally created to serve as a think tank and a research center. Andrew Carnegie established the foundation in 1905 for the sole purpose of creating a pension system for college teachers. “The advancement of teaching” meant literally responding to the need to advance the well-being of college teachers by providing them with a retirement pension that was at least as good as those offered to managers in industry, with which Andrew Carnegie was much more familiar. Thus the mission of the foundation had little to do with the advancement of learning and much more to do with improving the working conditions of teachers. Within a few short years, the research and policy functions of the foundation had developed significantly. By 1918 the pension system had grown so large and complex that its operation was spun off by the foundation as a new and quite distinct institution dubbed the Teachers Insurance Annuity Association or TIAA.

The Scholarship of Teaching and Scholarly Teaching

In his seminal volume “Scholarship reconsidered”, Ernest Boyer made a strong argument that university teaching must be treated as seriously as disciplinary investigations when defining scholarship. It became clear to us as we proceeded with our designs for CASTL that our conception of the scholarship of teaching was not identical to that of Boyer. While Boyer was making the necessary argument that the work of the teacher needed to be valued in the Academy in a manner comparable to the work of a researcher, we wished to go even further. We were intent on making the argument that while engaging in excellent teaching was indeed a scholarly act, until college and university teaching were quite literally acts of scholarship it was somewhat ingenuous to claim that they were equivalent to work the scholar does upon which other scholars can build and equally important that other scholars can review, assess and critique.

This distinction was sharpened when I received a note from Professor Dan Bernstein, then at the University of Nebraska. He asked if I was prepared to make a distinction between two important academic virtues, “scholarly teaching” and “the scholarship of teaching.” This was a very important question and it went to the heart of the differences between Boyer’s conception in Scholarship Reconsidered and the sense of a scholarship of teaching that was emerging from our work in the CASTL program.

My response to Dan (I no longer have the email text of that note) was that the idea put forward by Boyer in Scholarship Reconsidered was what I would now call “scholarly teaching.” Teaching always draws on the fruits of scholarship and, to the extent that a teacher then transforms what he or she already knows into new representations that can help students make sense of the world, the teaching itself is scholarly. Boyer’s argument
was that teaching should therefore be counted as a facet of the intellectual work of a professor, parallel to research, integration and application. I agree with that assertion. The vision of a scholarship of teaching inherent in the work of CASTL, however, was closer to a form of research. I argued that to be called "scholarship," an activity had to manifest three essential features: it should be public, subject to peer review and evaluation, and accessible for exchange and use by members of one's disciplinary community.

**Just Like Prose**

Like Moliere’s character in *The Imaginary Invalid*, Monsieur Jourdain, who learns from his philosophy master that he has been speaking prose all his life and never knew it, I realized in retrospect that I had been engaged in the scholarship of teaching and learning for many years and hadn’t so named it. Two examples stood out: my work on medical thinking in the late 1960s and early 1970s and the studies of pedagogical content knowledge in teaching conducted in the 1980s.

In 1968 I had been teaching at Michigan State University for five years when a fellow came into my office and introduced himself as Andrew Hunt, the newly appointed dean of the as yet non-existent university medical school. Hunt was interested in creating a medical school where the teaching of problem solving would be the central feature of the curriculum. He had learned that I did research on the psychology of problem solving and asked if I would be willing to shift half my academic appointment to the new medical school and help them figure out how to teach clinical problem solving more effectively. He insisted that medical education was far too important to be left to physicians.

I accepted his offer and within a short time we were conducting a large federally funded research program on medical problem solving among outstanding internists at the same time I sat on the curriculum committee helping to design the problem-based teaching program of the school. Subsequently, I joined an interdisciplinary team to teach the first year course for all medical students, and collaborated in developing new forms of assessment for evaluating student progress.

It was a heady period during which we conducted basic studies of how physicians think by training actors and actresses to portray patients with particular signs and symptoms, recruited outstanding internists whom we videotaped interacting with those "patients" in our lab after which they reviewed those tapes with us and "thought aloud" about what they were thinking during the sessions. At the same time, we experimented with different ways of teaching medical students how to think clinically like physicians. We also investigated just how much basic science medical students needed before they could begin taking on clinical problems (remarkably little!)

For the next five years the activities of research into the processes of medical thinking intersected with teaching, curriculum development and assessment design. We even did research on admissions decision-making that contributed to rethinking some of our admissions procedures. Just as important, much of the research was published in books (e.g., Elstein, Shulman and Sprafka, 1978), journals and conference papers, in addition to serving its internal functions. In retrospect, we were doing SOTL without knowing it as such.

The studies of medical problem solving followed me back to the field of teacher education. My students and I began to conduct studies of how new teachers learned to teach. Our starting point was “How does someone who already understands something learn to teach what they know to someone else?” We conducted those studies at the same time we were actively engaged in the very process we were investigating. We were teaching prospective high school teachers of sciences, history, English, mathematics and world languages how to
teach. They were all master's students, so they already held undergraduate degrees in the areas in which they would now become teachers.

Our pedagogical and research activities intersected, converged, collided and illuminated one another. Our research findings informed our teaching and clinical supervision. The difficulties we encountered as instructors stimulated new research questions. Concepts like pedagogical content knowledge emerged to describe the difference between knowing something \textit{per se} and coming to know it well enough to teach it to someone else. In turn, the work on learning to teach evolved to guide work on new challenges of evaluating the quality of teachers. That work, in turn, laid the groundwork for establishing the \textit{National Board for Professional Teaching Standards}. By 2010, there are nearly 100,000 board certified teachers in the United States. We wrote papers for research journals and conferences and also shared our new understandings with colleagues of practice. We didn’t call what we were doing the scholarship of teaching and learning, but looking backward I recognize that SOTL is what we were doing.

**Who is Entitled to Do SOTL**

I recall being blindsided by a colleague in the field of science education research who accused me of contributing to the bastardization of the field by encouraging faculty members who were never trained to conduct educational or social science research to engage in studies of teaching and learning in their fields. I was taken aback by that accusation because I felt that engaging disciplinary faculty members in the study of the teaching and learning was one of our signal contributions. Who better than holders of doctorates in history or physics to study what it means to understand those fields?

My critic’s I claim was that research on teaching and learning is complex, difficult and subtle. It requires far more than a background in the discipline of the curriculum whose work is under investigation. He reminded me that one of my most important contributions to education theory had been the work on pedagogical content knowledge, that kind of understanding in which knowledge of the discipline and knowledge of its particular range of pedagogies intersected to create a special kind of knowledge. Thus, a gifted mathematician does not necessarily have a deep understanding of the teaching and learning of mathematics any more than an expert in general principles of pedagogy is likely to be expert in the teaching and learning of non-Euclidean geometries. I had demonstrated that point in my research. He asserted that we at Carnegie were so eager to lure non-education faculty members in universities into engaging in SOTL that we were ignoring standards of scholarly rigor that we would never relax when reviewing research conducted by education research professionals.

This raises the important question of how well someone needs to understand both the discipline and the theories and methods of educational research to be entitled to engage in the scholarship of teaching and learning. It’s perfectly clear that if someone engaged in SOTL in, say, the teaching of physics, were to be guilty of a specific example of substantive scientific naïveté in his or her studies, the quality of their work would be subject to serious doubt. Should the same be true if physicists conducting such research are comparably guilty of conceptual or methodological errors in how they experiment, measure or interpret? Are we kidding ourselves if we think that a subject matter specialist can be trusted to do SOTL work after a couple of summer workshops when we are unlikely to afford the same leeway to an educational testing specialist after a summer workshop in US History?

As SOTL continues to develop as a field, these kinds of question will continue as well. SOTL is a hybrid, sitting at the intersection of discipline and profession much like scholarship in medicine and nursing, law and environmental science. How well does a skilled physician or nurse need to understand laboratory science in order to make a serious contribution to the
study of clinical work? How simplistic can the sociological or economic scholarship of a law professor be before it is dismissed as unacceptable? Was our call for disciplinary scholars to conduct such a work a corruption of the enterprise, a trivialization that diminished the substantial skill and training needed to do such work? Or is SOTL part of that leading edge of a new generation of interdisciplinary and cross-domain deliberations and inquiries that promise to redefine scholarship in the 21st century? These are precisely the kinds of questions that are answered by a new field as it develops. As journals like this one flourish, these issues will be debated and resolved...for a while.

**SOTL and the Moral Basis of Professing**

I was once admonished for being an evangelist for the scholarship of teaching and learning. Someone who had heard one of my early talks on SOTL and was deeply disturbed that I sounded too much like a religious revivalist when making the argument that those who teach have an obligation to study their own practice and to support a field whose purpose is to nurture such studies. He expressed a concern that I often sound more evangelical than scholarly, a rather strange attribution for a yeshiva dropout. If the scholarship of teaching is real research, he insisted, its advocacy should be as objective, rational and dispassionate as the practices it supports.

The rationale for science, however, is as deeply moral as the reasons why a society is obligated to engage in education. Even in science, the most unforgiveable sins are plagiarism and fraud. These violations undermine scholarship most fundamentally, because scholarship entails a mission that cannot, in principle, be pursued alone. It far exceeds the capacities of any individual or even any one generation.

By the same token, universities are institutions whose existence is predicated on the need for the creation, critique and transmission of knowledge. We like to claim that no question, however sensitive or politically incorrect, should fall beyond the boundaries of university scholarship. Academic scholars are obligated to pursue knowledge and to ask questions wherever their quests will take them. That assertion is an important basis for the principles of academic freedom and the conferral of tenure. That claim, however, does not exempt the university or college itself from asking those tough questions that pertain to its own work. We should be even more intent on investigating the work of universities as sites for teaching, learning and research as we are in investigating other questions that lie outside of our institutions.

SOTL is an area of scholarship that does not solve problems once and for all. The challenges of teaching and learning are persistent. They mutate and grow as new disciplines are invented, new challenges of practice emerge and new generations of both students and faculty come to inhabit and define our classrooms and institutions. These are problems that are not cured, but managed. SOTL is like the teaching practices that it investigates; they are renewed and reiterated year after year and generation after generation because they support the work of a higher calling. Since the world is forever changing, understanding of that world is a quest without end. Education and scholarship are the ways our species copes with the challenge of learning to live in, with and on behalf of that world.

And so, in the end, we resolve the *melamed’s* dilemma by recognizing that teaching can never be properly treated as something anyone does merely “on the side.” Neither can some form of the scholarship of teaching and learning be relegated to the sidelines of scholarly practice. It needs to become part of the ordinary job description of a professor, and an aspect of the regular doctoral programs of future scholars and college teachers. As I re-think and re-read the *melamed’s* story, I also recognize that he understood the irony
of his punch line quite well. He understood quite well that he was telling a joke. Mendele never thought of teaching as something anyone, even a Czar, could really do on the side.