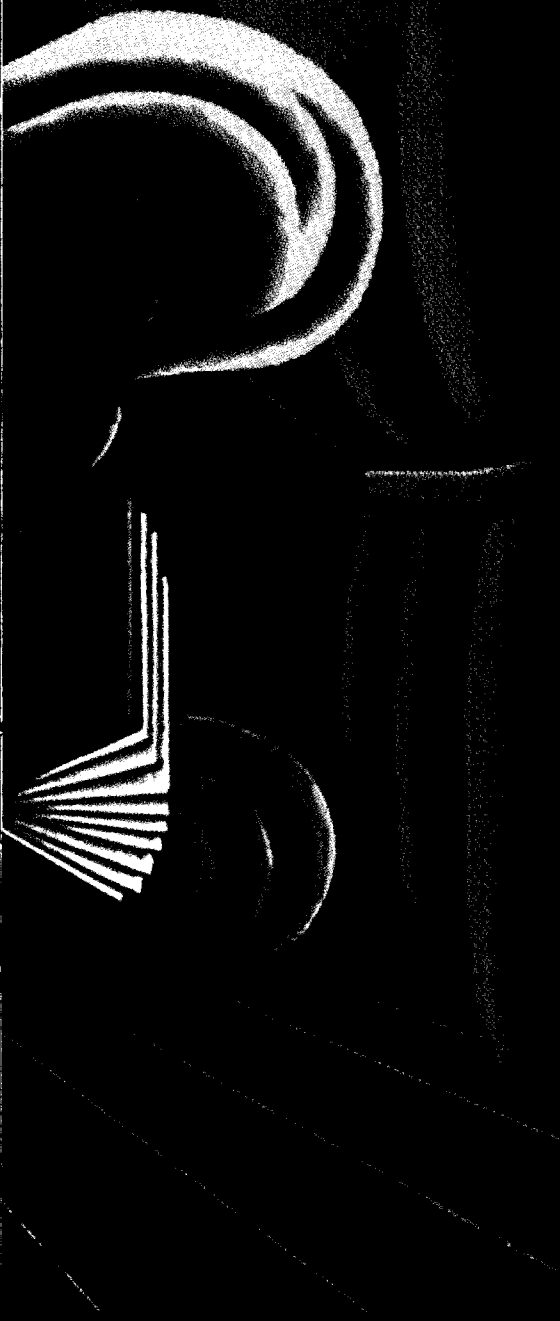




WHAT MAKES A REVOLUTION

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Teaching and Learning in Higher Education, 1980-2000

BY MARVIN LAZERSON, URSULA WAGENER,
AND NICHOLE SHUMANIS



Since the 1980s, American colleges and universities have initiated numerous efforts to improve teaching and learning on their campuses. These efforts have resulted in an expanded repertoire of teaching practices, including greater student involvement through collaborative and cooperative learning; technology-based teaching; service-learning; role-playing to promote active classrooms; learning communities to bring faculty and students closer together; and teaching centers to improve practice. Faculty surveys conducted by the Higher Education Research Institute (HERI) at the University of California—Los Angeles (UCLA) in 1989 and again in 1998 reveal the changes: a 42 percent and 49 percent increase, respectively, in the percentage of faculty who said they commonly use cooperative learning and group projects in their undergraduate courses and a 15 percent drop in the percentage of faculty who said they lecture extensively.

And yet, for all the pedagogical innovations—even the advent of the Web—there has been precious little deeper reform. Individual professors may teach somewhat differently than they did two decades ago and discussions about how to assess learning are more common than in the past, but there is little evidence that the changes add up to a systemic reconsideration of how and why students learn or of how institutions, rather than simply individual professors, can revise their approaches to teaching. With few exceptions, teaching changes have not been tied to higher education's incentive and reward system. Research remains the primary avenue to individual and institutional prestige.

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ON?



In this article, we look at a slice of the movement to improve the quality of teaching and learning over the last two decades, initiated by the state-driven assessment and accountability movements, and then depict how a small group of higher education reformers tried to give teaching and learning a more central role on college and university campuses. We find that efforts to improve teaching and learning have been supported only in part by faculty and institutions as a whole, with results that are neither significant nor pervasive.

LEARNING, ASSESSMENT, AND ACCOUNTABILITY

The view that higher education was in deep need of reform spilled over from the national catharsis in the mid-1980s over the poor quality of elementary and secondary schooling. Beginning with *A Nation at Risk* in 1983, federal and state interventions pushed for standardized testing, more rigorous high school graduation requirements, and minimum learning standards. Inescapably, similar criticisms were directed toward the nation's colleges, as a host of national reports appeared in the mid-1980s challenging the ways higher education conducted its business.

At the state level, the assessment of student learning quickly emerged as a primary way to hold institutions accountable. During the 1980s the number of states that required public colleges and universities to assess learning outcomes went from near zero to over 40; since 1988, all of the regional and programmatic accreditations have included assessment in their criteria for approval. Assessment of student learning, Pat Hutchings and Ted Marchese of the American Association for Higher Education (AAHE) concluded in 1990, had become "a condition of doing business."

Controversy centered around two overlapping conflicts—externally imposed mandates versus institutional autonomy on the one hand and standardized tests versus campus-based assessments on the other. Public officials initially pushed for

statewide, standardized measurements of learning, thereby allowing them to compare institutional achievements for budgetary purposes. Higher education associations like AAHE and campus leaders called for locally based faculty-owned forms of assessment for use in improving teaching and learning. Higher education won the argument. Most states opted to require assessments but left institutions free to develop their own procedures.

By the early 1990s, the assessment movement had made major inroads, with many institutions engaged in assessment activities and attendance booming at events such as AAHE's assessment forums. On most campuses, however, faculty still viewed assessment as externally imposed reporting requirements having little to do with their business of research and teaching, and they objected to the public's oversimplified view that measuring learning was simple. If there was a

"learning problem," they tended to argue, it resided in student motivation and inadequate schooling prior to college.

The states became impatient. By the mid-1990s, it was obvious that state-mandated assessments had not altered undergraduate education. Again, there were demands for clear, comparative measures of student learning for funding-allocation decisions. Over half the states began to include a broader range of more easily measured performance indicators, such as enrollment and graduation rates; degree completion and time to degree; transfer rates to and from 2- and 4-year institutions; pass rates on professional exams; and faculty "productivity" through student-faculty ratios and instructional contact hours.

At the end of the 1990s, the assessment movement was both flourishing and in shambles. As an externally driven phenomenon, the movement had forced student learning onto higher education's agenda. To its credit, substantial numbers of faculty were now engaged in assessment-driven conversations about teaching and learning, goals and competence, and the uses of evidence for improvement. Accrediting agencies were now the main (outside) agents telling institutions and their faculties to take student assessment seriously. Professional schools especially took the lead in developing competency-based and problem-solving curricula within which faculty could more productively teach for and assess competence. AAHE, in many ways the patron of assessment within higher education, again witnessed a resurgence of growth in its June assessment conferences, with attendance jumping from 960 in 1997 to over 1,600 in 1999.

Exploring how far the assessment movement extended, a National Center for Postsecondary Improvement (NCPI) survey of chief academic officers at almost 1,400 public and private institutions revealed that the overwhelming majority of schools—between 74 percent and 96 percent, depending on the item measured—reported collecting student assessment

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data, including progress to degree, basic college readiness skills, academic intentions, and student satisfaction with their undergraduate experience (*Change*, September/October, 1999).

Beneath the assessment movement’s rapid growth, however, were jolting revelations. The NCPI survey reported that only a third or so of the institutions assessed students’ higher-order learning skills, affective development, or professional skills. Alternative assessments—like the much-talked-about portfolios, capstone projects, and observations of student performance—were infrequent. In their “most disappointing finding,” the NCPI investigators also discovered that institutions rarely used their student assessment data in academic decision making.

Similarly, in a look at the assessment efforts of 320 institutions that went through the North Central Association of Colleges and Schools accrediting process between 1997 and 1999, Associate Director Cecelia López found that “virtually all” institutions were either just starting various aspects of their assessment programs or had only some implementation to speak of. Only a small minority of institutions made full use of the assessments in their educational planning and practices.

The disjuncture between assessment practice and faculty behavior, then, remained substantial. Faculty trained to teach their disciplines showed little interest in assessments that went beyond the norms of course examinations and papers. While most academic administrators—72 percent in the NCPI survey—reported they strongly supported student assessment, these same administrators identified only 24 percent of their faculty as being very supportive of the practice. Interpreting the survey, *Change* Executive Editor Ted Marchese concluded that “the assessment movement, following 15 years of imprecation and mandate, has produced widely observed rituals of compliance on campus, but these have had only minor impacts on the aims of the practice.... To say the least, this is a disappointment.”

VOICES OF REFORM

The assessment movement’s ambiguous results attested to the difficulties of externally imposed change on higher education and especially on faculty “business.” The results were also an acknowledgment that assessing learning was not simple; even where campuses wanted to assess, vigorous debate about how to do so occurred. Nonetheless, within higher education a key group of individuals led a parallel campaign to get colleges and universities to take teaching and student learning seriously. As participants at times in the assessment movement, they were politically well aware of how difficult change would be, especially at large, research-oriented universities. As with assessment, the learning reformers played the “imperative” card—that external pressures demanded change—but they took care not to further faculty backlash with heavy-handed threats. They understood that professors held fast to the norms of faculty autonomy—the right to pursue their research and to teach their

classes unfettered by bureaucratic constraints—and that research stood at the top of the status hierarchy.

To advance their cause, the reformers fashioned a new language about the “scholarship of teaching.” To attract administrators, they claimed that invigorated teaching would make their institutions more attractive to students. Before one and all, they valued student learning for its own sake, believing that higher education had been led astray in neglecting it.

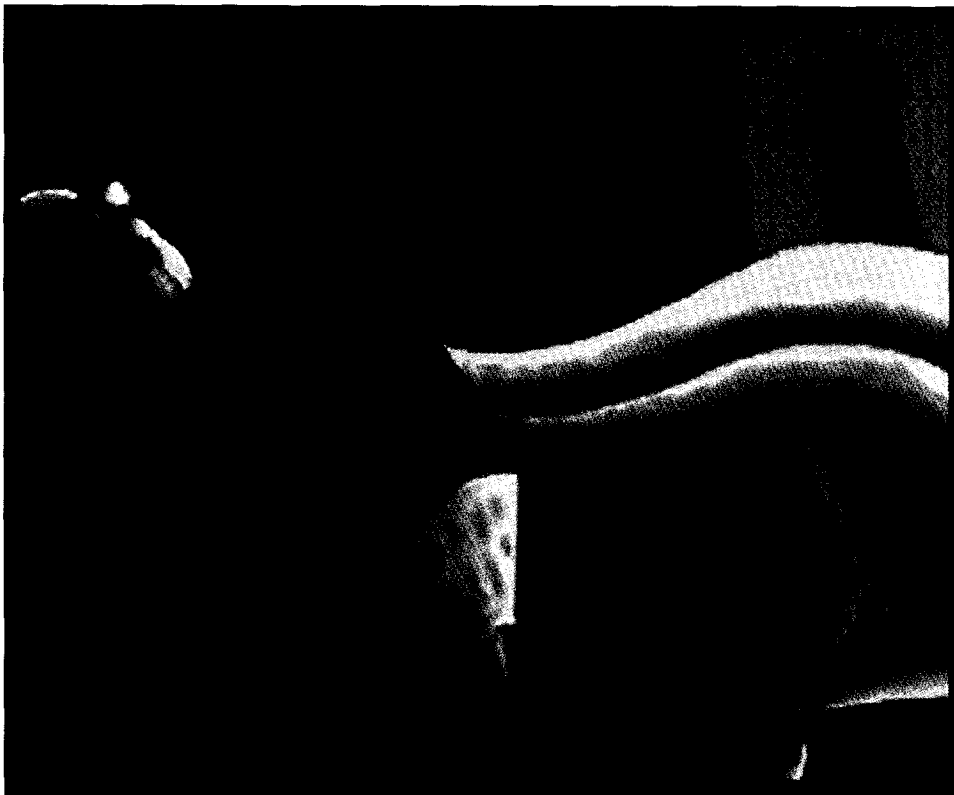
In the sections that follow, we outline six higher education reformers’ visions of how to improve teaching and learning: Alexander Astin of HERI at UCLA; Derek Bok and Richard Light of Harvard University; Ernest Boyer of the Carnegie Foundation for the Advancement of Teaching; K. Patricia Cross of the University of California, Berkeley, and the American Association for Higher Education (AAHE); and Lee Shulman of Stanford University and the Carnegie Foundation for the Advancement of Teaching. They were not alone; on numerous campuses groups of faculty and administrators engaged in battles to reshape faculty and student responsibility toward learning. But these six captured national attention and their stories illuminate what was happening.

LEARNING ENVIRONMENTS: ALEXANDER ASTIN

In the early and mid-1980s, UCLA’s Alexander Astin articulated new paths for learning reformers to follow. Having achieved national prominence for his work on student values, most notably through an annual freshman survey of more than 375,000 college entrants at about 700 2- and 4-year colleges, Astin claimed that most measures of institutional quality—resources, reputation, curricular content, student graduation rates, and post-college economic success—were badly flawed because they said nothing about student learning. A college’s quality and its prestige, he argued, should be measured by the “value added” to its students’ learning. And, he believed, campuses and classrooms could be reorganized to engage students in their own learning.

These views received widespread attention with the publication in 1984 of the National Institute of Education’s *Involve-ment in Learning*. Heavily influenced by Astin as a member of the panel that drafted the report, *Involvement* argued that effective learning required high expectations, student involvement in their own learning, and assessment and feedback as a means of furthering learning, themes similar to those articulated by many K-12 educational reformers. The standard methods of teaching—lecturing and discussion sections—would not engage students.

By the mid-1980s, Astin’s ideas resonated among learning reformers. Learning had to matter in the reputational rankings of institutional quality and students had to be active participants in their own learning. His view of quality (“value added”) implied assessment as a necessity and instructional reform as the logical consequence. One version of reform was on the table.



THE HARVARD DYNAMIC: DEREK BOK AND RICHARD LIGHT

Derek Bok, Harvard University's president from 1971 to 1991, was an unlikely candidate to push teaching and learning reform. But, like many other higher education leaders in the 1980s, Bok was concerned with the public's anger at skyrocketing tuition. Responding to these external pressures, he asked, "What do we really know about the value of a college education? In fact, the evidence we have is at once thin and disturbing.... There is little cause for celebration in research findings indicating that the average [college] senior knows only as much as students at the 84th percentile of the freshman class." Adopting Astin's language of value added, he concluded that universities and colleges had to demonstrate that they genuinely added to students' knowledge.

Bok concretized his concerns by asking his Harvard colleagues to examine Harvard's learning environment. To oversee the effort, he turned to Professor Richard Light, a noted statistician and evaluator who held appointments at both the Harvard Graduate School of Education and Kennedy School of Government. For four years, beginning in the fall of 1986, the Harvard Assessment Seminars engaged over 100 people from more than two dozen colleges and universities to "encourage innovation in teaching, in curriculum, in advising, and to evaluate the effectiveness of each innovation." Bok showed his commitment to the enterprise by attending the seminar's regular monthly meetings for the first six months of their existence.

Working in small groups, the seminars surveyed samples of Harvard College undergraduates and alumni and then issued two nationally disseminated reports, frequently referred to as the Light Reports. Among the reports' findings: Student learning increased when students had immediate feedback on quizzes and assignments and when they were given opportunities for revision. Students learned better in small classes, when they used study groups, and when they shared their written

papers with peers ahead of class—findings congruent with Alexander Astin's views.

The most often cited teaching tip derived from a suggestion of seminar participant K. Patricia Cross that professors should use a "one-minute paper," which asks students to respond to two questions: 1) What is the big point you learned in class today? and 2) What is the main unanswered question you leave class with today? Each of the questions was designed to foster student learning through active listening and to encourage students to think of the broad goals of the class rather than the details of any particular topic.

The response to the Light Reports was immediate—Light calls it "astounding." He initially requested that 1,000 copies be printed, primarily for distribution within Harvard; by the late 1990s, he had fulfilled 18,000 requests for copies, and the number reproduced on campuses is incalculable.

The reports' advice was concrete and practical: pay more attention to how your students learn, stimulate greater interaction among them, respond quickly to their work, and ask them to assess what they have learned on an ongoing basis. Coming out of Harvard, the Light Reports gave symbolic status and legitimacy to the conduct of assessment and to the emergent focus on teaching and learning.

THE SCHOLARSHIP OF TEACHING: ERNEST L. BOYER

In the half century after World War II, higher education's faculty reward system came to be dominated by the ethos of research. So powerful was this ethos that many institutions with self-proclaimed teaching missions substantially increased the role of research in faculty hiring and promotions. The resulting conundrum was simple to state but exceedingly difficult to resolve. Given research's connection to institutional and personal advancement, how could one convince institutions and faculty to dignify teaching with a status like that of research?

The answer was actually quite simple—at least at the level of rhetoric. For Ernest Boyer, president of the Carnegie Foundation for the Advancement of Teaching between 1979 and his untimely death in 1995, the answer lay in redefining "scholarship" to incorporate a wide variety of faculty work (research, teaching, integration, and outreach) and within such a context to view teaching as an intellectual act that contributed to the transformation of knowledge. Rather than attacking higher education's preoccupation with scholarly productivity, then, or asking higher education to choose between research and teaching in a zero-sum game, Boyer subsumed both under a new, larger category and—most important for our purposes—called for teaching itself to become a scholarly activity.

Boyer built his case around a series of Carnegie Foundation reports from the mid- and late-1980s that showed most professors spent most of their time teaching while believing they

Boyer's reconceptualization had been brilliant; it offered a constructive way to think about teaching to institutions reluctant to diminish their research agendas.

worked in an environment that regarded research more highly. He articulated his fuller position in a widely cited and controversial book, *Scholarship Reconsidered: Priorities of the Professoriate*. Boyer was nothing if not tireless in disseminating his views; no college was too small for his attendance. *Scholarship Reconsidered* soon seemed to be on almost every college and university president's desk, a way of announcing to faculty and the public that "my institution" was paying attention. Professional organizations hosted conferences with Boyer as the keynote speaker. Administrators used his work to add teaching dossiers to promotion and tenure decisions. Teaching as a scholarly activity—a phrase borrowed from elementary and secondary classroom research—became a new higher education buzz word.

And yet, while it became harder in the late-1980s and early 1990s to ignore poor teaching, especially as institutions competed for students, and while some PhD programs expressed interest in having their students become better teachers, there was an add-on quality to the new emphasis on teaching. Boyer's efforts seemed to further complicate being a professor: now one had to succeed as a disciplinary-based researcher and as a researcher of one's own teaching. Where faculty promotion typically depended on high levels of research productivity, "evidence of successful teaching" came to be added. It was a second job piled on top of the first.

Boyer's proposals to give teaching greater weight by according it scholarly status received enormous rhetorical support. Years later, at the end of the 1990s, his commitment to teaching as a scholarly activity would receive a substantial boost when the foundation he led, in cooperation with AAHE, initiated a major effort to convert "rhetoric to action." However that effort works out (as we discuss below), Boyer's reconceptualization had been brilliant; it offered a constructive way to think about teaching to institutions reluctant to diminish their research agendas. Politically astute in understanding higher education's ethos, Boyer provided a window through which the learning reformers could climb.

CLASSROOM ASSESSMENT AND CLASSROOM RESEARCH: K. PATRICIA CROSS

The reform movement was often stronger on rhetoric than it was on developing concrete ways to change collegiate classrooms. The question of how to conduct classrooms in which students would learn more had, however, begun to attract the attention of a few individuals and organizations. None was more influential than K. Patricia Cross. An initial member of Light's assessment seminars while a senior lecturer at the Harvard Graduate School of Education before becoming Gardner Professor of Higher Education at the University of California, Berkeley, Cross had an international reputation for her work on community colleges, adult learners, and lifelong learning.

Finding that almost no relationship existed between research on learning and collegiate teaching practices (profes-

sors were either oblivious to such research or ignored it), Cross concluded that the research itself was at fault for failure to pay attention to actual classrooms. She argued that teaching and learning reforms could occur only if they were based on concrete classroom situations. Cross made "how to do it" her calling card.

Developing her arguments throughout the 1980s and into the 1990s, Cross consolidated her views in two books, *Classroom Assessment Techniques: A Handbook for College Teachers* (with Thomas Angelo, 1993) and *Introduction to Classroom Research* (with Mimi Harris Steadman, 1996). College faculty could not be effective teachers unless they knew how to assess their own teaching and their students' learning, she said. There were techniques—like the one-minute paper, learning logs, student learning goals—that opened doors to what students learned in the classroom, doors that traditional devices like term papers and examinations only partially opened because they provided so little useful feedback. Feedback from classroom assessment, in contrast, would be immediate, continuous, and relevant to changes in teaching and genuine improvements in student learning.

Introduction to Classroom Research extended these views by taking the rhetoric of a scholarship of teaching and giving it "operational definition." Since Cross believed the experiences of classroom teachers were the essential starting point for improvements in teaching and learning, she urged professors to engage in their own classroom research: observing students in the act of learning, reflecting upon and discussing with colleagues one another's observations and data, and reading the literature on learning. She was determined to help faculty understand their teaching practices in order to improve student learning.

Cross's work achieved widespread popularity—some 35,000 copies of *Classroom Assessment Techniques* were sold. Beginning in the late-1980s, AAHE, in which she played an important role, increased its commitment to helping faculty undertake classroom assessments. Numerous public and private institutions, facing sharp criticisms from legislators and boards, concerned about their enrollments and retention rates, worried about the market consequences of dissatisfied families, and wanting to distinguish themselves as places where students learned, used Cross's ideas to initiate reforms.

Cross's arguments were both sweeping and concrete. Faculty should understand and use research on learning; professors should understand the different motivations, academic backgrounds, and learning styles of their students. But her emphasis on how to do it seemed to some to push collegiate teaching toward a "method" mindedness akin to teacher education; faculties in lower status but aspiring institutions especially didn't want to embrace ideas they associated with schools of education and community colleges.

Cross herself became aware of the dilemmas her work faced. Many community colleges embraced her work because it gave



advance the notion of a scholarship of teaching by propagating a deeper, more nuanced definition of the term.

To Shulman, a scholarship of teaching—like research—is characterized by its public nature, susceptibility to critical review and evaluation, and accessibility for exchange and use by other members of one's scholarly community. To make his case, Shulman drew upon his understanding of medical research and medical practice, an understanding gained through his earlier efforts to reform medical education. The scholarship of teaching is not synonymous with "excellent teaching," he said, nor will it be done by every professor—just as most medical doctors, however excellent they may be, are not expected to undertake research into their practice. A scholarship of teaching plays a role similar to that of clinical research, which allows medical practice to improve.

them concrete help in teaching hard-to-teach students, but just as many state colleges and branch campuses of state universities were reluctant to identify with her work. Aspiring to upward mobility in a system that put disciplinary research at the top of the hierarchy, faculty and administrators showed limited interest in emphasizing tips on teaching or classroom assessment.

What Cross *had* shown was that it lay in the faculty's power—if only they would take the responsibility—to improve the quality of teaching and thereby student learning. And, in that, her work had the potential to cast a long shadow over higher education's traditional ways of doing things.

CONNECTING TEACHING TO THE DISCIPLINES: LEE SHULMAN

The appointment in 1997 of Stanford's Lee Shulman to the presidency of the Carnegie Foundation for the Advancement of Teaching (CFAT) ensured that Ernest Boyer's efforts to create a scholarship of teaching would continue. For more than 25 years Shulman had been working to improve teaching at all educational levels, from elementary school through medical school. Arguing that good teaching had to emerge from the distinctive characteristics of a discipline and that there were thus distinctive ways, for example, to teach history, chemistry, or mathematics, he rejected the notion that teaching was primarily about generalized methods or techniques (a view often dominant in teacher education); instead, he argued, good teaching enacted teachers' understanding of their disciplines. In the 1980s and early 1990s, Shulman championed teachers' disciplinary knowledge as a necessary condition for effective teaching and made that the theme of his work to reform teaching in the schools and teacher preparation. Given that history, it was a relatively easy step for him to bring his arguments to higher education, where most college teachers indeed made their discipline the starting point for their teaching.

Upon assuming CFAT's leadership, Shulman sought to

Writing in 1999, Shulman and Pat Hutchings described the scholarship of teaching as requiring "a kind of 'going meta,' in which faculty frame and systematically investigate questions related to student learning—the conditions under which it occurs, what it looks like, how to deepen it, and so forth—and do so with an eye not only to improving their own classroom but to advancing practice beyond it.... It is the mechanism through which teaching can be something other than a seat-of-the-pants operation.... As such, the scholarship of teaching has the potential to serve ALL teachers."

Shulman moved quickly to implement his ideas by establishing the Carnegie Academy for the Scholarship of Teaching and Learning (CASTL) in 1998, a three-pronged, \$6-million, 5-year effort funded by The Pew Charitable Trusts and CFAT. One prong would bring together over 100 faculty across select disciplines who were to create new conceptual models of teaching as scholarly work. The second prong involves working directly with college and university campuses (130 so far; this part is led by AAHE); a third entails collaborative work with professional and scholarly societies. The goal, says Shulman, is not to work with individual faculty to improve their teaching and learning, but to advance scholarship in teaching that will *in turn* improve teaching and learning.

It is still too early to gauge the impact of Shulman's efforts. To push the learning reform movement forward he has adopted the view that reform will only occur when professors define teaching as a scholarly activity, seek to understand it as such, and revise their practices in light of their and others' systematic inquiries. Simple as it is to state, Shulman himself describes getting higher education to take student learning seriously as one of the hardest tasks he has ever undertaken.

THE REFORMERS' DILEMMA

The teaching and learning reformers understood that the overwhelming dominance of the research ethos distorted higher

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education's mission. To correct that distortion they tried to make teaching and learning a subject of scholarship. "The reason teaching is not more valued in academe," Shulman wrote, "is not because campuses don't care about it but because it has not been treated as an aspect of faculty's work and role within the scholarly community."

Others from within higher education joined the chorus. AAHE initiated projects to help institutions make assessment more congruent with what faculty do. *Change*, under the editorship of AAHE's Ted Marchese, regularly published articles during the 1980s and 1990s on assessment, new ways of teaching, and learning reforms. Accrediting agencies joined in; professional societies prodded professional schools to innovate. The National Science Foundation and the American Association for the Advancement of Science supported teaching and learning reforms in colleges, as well as in the schools.

On college campuses, the repertoire of teaching practices is greater than at any time in recent memory. Teaching centers proliferate, shifting from symbolic gestures—"we are doing something" about our graduate teaching assistants—to serious work with regular faculty, often around how to use Web-based learning more effectively. Foundations support teaching and learning initiatives; in states like Washington, institutional collaborations are growing. Cooperative learning, case method teaching, competency-based education, service-learning, learning communities, and, most prominently, technology-based teaching are now part of institutional conversations.

Nonetheless, a genuine teaching-learning revolution seems far away. The disjuncture between "lots of assessment activities" and faculty teaching and reward systems is substantial. Campus conversations about teaching may be occurring, but the dialogue on professorial responsibility for student learning appears modest at best. There are "active" classrooms where students take responsibility for their learning but where there also is little serious assessment of what students are actually learning. W. Norton Grubb's provocative analysis of classroom teaching in community colleges (*Honored But Invisible: An Inside Look at Teaching in Community Colleges*, 1999) suggests that the quality of teaching is mainly mediocre. Teaching evaluations may now be mandatory just about everywhere but they have only modest impacts on promotion compared to research publications. While the repertoire of innovative teaching practices grows, we are uncertain that institutional leaders are connecting incremental changes to *systemic* strategies for making teaching and learning a central, highly rewarded activity on their campuses.

INSTITUTIONAL BATTLES

The efforts to change teaching and improve learning are essentially battles over institutional values, rewards, and behaviors. For more than a half century the ethos of research has brought institutions and professors enormous prestige. In Larry Cuban's words, faculty were hired to teach but rewarded for re-

search, even at many self-described teaching institutions (*How Scholars Trumped Teachers*, 1999). Faculty who want to make teaching and learning their professional centerpiece find only modest institutional support for their efforts. Changing this culture will be extraordinarily tough.

Many in higher education even wonder what the fuss is all about. Learning is, as we've noted, still widely viewed as a student and elementary/secondary school problem. Either students come to college with the skills and motivation to learn or they do not. If there is a problem with learning, it is not higher education's—save perhaps at the community college level, which is increasingly viewed as something between the salvation and the dumping ground for the educational system's prior failures. This belief that the problems of learning are someone else's, not theirs, provides professors with an enormous defense against rethinking their responsibilities toward students.

The movement to transform teaching and learning, moreover, was initiated in the 1980s during a period of fiscal crisis and sharp public criticism. Today both of these factors are muted. People are standing in line to enter college. The economy has boomed so that most states are putting money back into higher education. Endowments and annual giving at many institutions have provided a fiscal freedom barely conceivable 20 years ago. Faculty salaries are going up; campuses resemble huge construction sites; legislative criticism is constrained as public officials read polls telling them that educational investments are a high priority. College graduates are getting jobs. The "heat" on higher education is largely off.

Still, certain characteristics of American higher education lend themselves to the reform and improvement of teaching and learning. Higher education is both market competitive and relatively autonomous. Its competitiveness means that colleges and universities are sensitive to market demands and that parents, students, and other constituencies can play an important role in demanding quality teaching and learning.

Higher education's relative autonomy means that institutional leaders have an opportunity to work on teaching and learning long enough to install real reforms. The need is to weave together the incremental changes that have occurred in assessment and teaching practices into a pattern of systemic reform. If enough incremental changes are woven together, perhaps one day institutional prestige in higher education will be based on teaching and learning, not just on resources and research. ©

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