THE SCHOLARSHIP OF TEACHING
By Eileen Bender and Donald Gray

Our work as university professors for a long time has been bedeviled by two injurious ideas. The first is that the demands of teaching and research are counterforces fiercely contending for control of our time. The very metaphors we use to characterize the plight of professors reflect this idea. We are acrobats, juggling unevenly weighted "teaching loads" and programs of research; or, worse, we are scholars and scientists held hostage in classrooms, for whom ransoms must be negotiated to gain "release" for research.

The second idea is that we are curiously alone in our classrooms. We often imagine teaching as individualistic and self-directed, a sequestered event to which students are the only witnesses, and in which the professor is the only teacher. We think of students as being taught rather than as learning. They even listen to us when they speak; classroom "discussion" often breaks down to a stream of questions or comments steadily mediated by us as we shape and spin all that is said to fit the plans of the day, the week, or the semester.

We tend to assume that what we do in our classrooms is so individual and private that it cannot be evaluated or even fruitfully talked about. The prospect of peers in our classrooms—observers or collaborators—makes us uneasy. Conversations about teaching outside our classrooms characteristically pull up short of what we like to imagine and cherish as the mystery of our effectiveness. Instead, these talks bump along on the level of anecdote, disjointed news about good days and bad, tactics that worked and assignments that did not or, frequently, finer points our students somehow missed.

Such practices reinforce a view of teaching as personal, idiosyncratic, and ephemeral, quite unlike the heavily scrutinized and replicable activity we identify as research. While we imagine research settings to be cool, tightly controlled, and contaminant-free, we know classroom environments, in contrast, to be diverse and occasionally unruly. Research and creative activity is seen as a search for the new and original, submitted to specialists with expertise recognized beyond any single campus; while the campus provides the narrower context where teaching, an assimilative process designed for the improvement of generalists and amateurs, takes place.

In recent years, the process of learning, the essential object of both research and teaching, has come under new scrutiny, and the idea of the combat between teaching and research seems less and less adequate to nourish our work. Educational leaders such as Ernest Boyer, Eugene Rice, Lee Shulman, and Gerhard Caspar have focused our attention instead on the interaction, interpenetration, and convergence of the dynamic processes of teaching and research.

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This is a question that we often receive in the Testing Center and one that provides great confusion for both faculty and students alike. The first step in answering this, however, begins with discussing what defines a "bad" question.

It is difficult to say exactly what a "bad" question is without taking into account the question's context, but generally the following rules apply. For specific definitions of item difficulty and item discrimination please see the Testing Center Manual.

Summary of Standards of Acceptance
Item Difficulty (p) 30% - 80%
Item Discrimination .20 and above

The next question, then, is what do we do with a poorly written question or a question that does not meet the criteria stated above? Our recommendation is to throw the question out, unless a specific educational objective is trying to be met. When we say throw it out, we mean remove the question and rescore the test. Why is this the preferred method? Why not choose accepting more than one answer or crediting all students or rewarding the students who answer correctly without affecting the scores of the students who answer incorrectly? We throw the question out because a poor question adds error to the test score. The precision of a student's obtained test score is an estimate of that student's "true" score on the skill tested, and it is greatly affected by "bad" test items.

For example, a 30-item multiple-choice test administered by the author resulted in a reliability of .79. On this test were seven items with item-test correlations below .20. Discarding those bad questions yielded a 23-item test with a reliability of .88. Thus, by dropping the worst items from the test, the students' obtained scores on the amended version are judged to be more precise estimates than the same students' obtained scores on the original version.

The reader may question whether it is ethical to throw out poorly performing questions when some students may have answered them correctly based on their knowledge of course material. Our opinion is that this practice is completely justified. The purpose of summative testing is to determine each student's rank. Retaining psychometrically unsatisfactory questions is contrary to this goal and degrades the accuracy of the resulting ranking.

Quotes to Brighten Your Day

We must never cease from exploration. And the end of all our exploring will be to arrive where we began and to know the place for the first time. T.S. Eliot

I know of no more encouraging fact than the unquestionable ability of man to elevate his life by conscious endeavor. Henry David Thoreau

Our greatest battles are that with our own minds. Jameson Frank

Twenty years from now you will be more disappointed by the things you didn't do than by the ones you did do. So throw off the bowlines. Sail away from the safe harbor. Catch the trade winds in your sails. Explore. Dream. Discover. Mark Twain

No pessimist ever discovered the secret of the stars, or sailed to an uncharted land, or opened a new doorway for the human spirit. Helen Keller

We do not believe in ourselves until someone reveals that deep inside us is valuable, worth listening to, worthy of our trust, sacred to our touch. Once we believe in ourselves we can risk curiosity, wonder, spontaneous delight or any experience that reveals the human spirit. E. E. Cummings

We are what we repeatedly do. Excellence, therefore, is not an act but a habit. Aristotle

Stand up to your obstacles and do something about them. You will find that they haven't half the strength you think they have. Norman Vincent Peale
Communication Styles

Who do some of our students not achieve the levels of learning we expect even when subject matter is well planned and expertly delivered? We see proof of this when we look at the item analysis of our examinations. Often even when the majority of students have done extremely well, we see a significant minority of students falling flat on their faces. This is not a simple problem, and it does not have a simple solution. There are many factors that enter into the equation, including motivation to learn a particular area, language barriers, pressures from other demanding courses creating cognitive overload, personality conflicts with faculty and students, and last, but certainly not least, learning style.

Within the vast body of literature dealing with higher education learning, we find that different groups learn in different ways. However, the literature is not always helpful in suggesting ways for instructors to flex their teaching to accommodate different learning styles. Unfortunately, this is probably the most difficult challenge teachers face, even the great ones. An excellent book on the subject, You've Got to Reach 'Em to Teach 'Em (Anita Simon and Claudia Byron, Training Assoc. Press, Inc., Dallas, TX, 1984), suggests ways of meeting individual differences in learning styles by communicating in different ways to get through to every learner. The authors describe four distinct teaching styles called thinking, feeling, sensing, and intuition. When thinking learning style students are with a congruent teaching style, learning peaks. But, place the same learner with a sensing or other non-congruent teaching style and learning can be quite poor.

There are several challenges here. One is to help students get to know their own preferred learning style. This can be accomplished using the Meyers-Briggs Personality Inventory, which is a decent predictor of learning style. Another way is to help students develop access to learning when the teaching style is completely opposite to their favorite way of learning. Sometimes when students understand the value of each style, even though it may be foreign to them, access to other learning modalities can be enhanced. At first, a style shift may be stressful to the learner, but once it is understood, the value of the outcome will outweigh the stress. The same is true of professors. Once we learn some style-flex in our methodology, the process will become easier.

I learned this many years ago in my counseling practice. When having a conference with a troubled student, I very often had to shift from a non-directive to more directive mode, especially for primary sensing students, who found the traditional cognitive therapies logical but too difficult to implement or even useless. This was also true in dealing with difficult parents of students.

In summary, flexing communication styles with learners will really pay off. Without question, this is an additional burden for teachers. It takes additional planning time to design these different modalities, but once the time is invested, the hard work is over. Some instructors will argue that keeping the same teaching style as the instructor who taught them or keeping the same teaching style that is most comfortable for them is best - the students must flex their learning styles to accommodate the instructors. However, do we really think that will happen? It seems doubtful to me. What we must realize is that every learning style has its strengths. If these are engaged, we can enhance learning. Furthermore, even though an instructor may find it difficult to change his or her personality, it is still possible to change behavior.

According to Byron and Simon, the heart of effective teaching lies in style-flex, the ability to shift away from your primary style to what is most appropriate at any time. This does not mean watering down goals or objectives. It means communicating on the same wave length as your students. We can see the need to do this as a threat to our comfort zone, or we can view the concept as an enriching learning tool. If you would like to talk about planning in the four communication styles, see me, Stan Cohen, room 1523 of the Terry Building.

Reminder:
Mark your calendars for the Brown Bag Book Club

June 14th
July 12th

See Page 1 Upcoming Events for details
Thinking about teaching begins where all intellectual inquiry begins, with questions about what is going on and how to explain, support, and replicate answers that satisfy us. With the blurring of the boundaries that we have long drawn between faculty roles in research and teaching--and a growing recognition of their common intellectual patterns of questioning, exploring, testing, and professing--a new phrase has emerged, challenging the stereotypes and calling for further amplification: "the scholarship of teaching."

For Boyer, who is credited with coining the phrase in his widely discussed Scholarship Reconsidered (1990), our acts of discovery, application, integration, and teaching are all "scholarships," four mutually dependent and overlapping forms of inquiry focused on learning. For Eugene Rice, Boyer's expanded conception of scholarship takes us to an idea of the university as a community of inquiry. In this community the "new American scholar" participates not as an Emersonian individualist but as a multiply committed colleague of students as well as fellow teachers, all of whom engage in what Gerhard Caspar has called the defining activity of research and teaching: the search to know.

Led by its new president, Lee Shulman, the Carnegie Foundation for the Advancement of Teaching has mounted a national initiative to promote faculty discussions of the definition and role of the scholarship of teaching. Shulman asks us, in short, neither to re-label teaching as "scholarship" nor research as "teaching," but simply to recognize that teaching is scholarly work. As faculty schooled in an academy dominated by the preeminence of research, we should know what that means: an activity that is problem based, intentionally designed, theoretically grounded, peer evaluated, and accountable. Teaching, like other forms of scholarly work, must not only be reflective, systematic, and replicable, but public.

Conceiving of teaching as, in Shulman's words, "community property," bumps into the second idea that troubles our work: our notion of the uniqueness and privacy of teaching. That idea carries its costs. Parker J. Palmer is only one of many contemporary academic observers and critics who warn of the perils to the university itself of enforcing the myth of a teacher's necessary isolation. Not only may isolation be read by those outside (and maybe inside) the university as a refusal of accountability, but to sequester ourselves from colleagues from whom we can learn as we teach is to risk a narrowing of purpose and an erosion of energy and spirit.

More important, the scholarship of teaching itself tells us that learning in the classroom is collaborative, that the professor is not the only teacher in the room, and that what happens in it is not just up to us. Everyone implicated in the scholarship of teaching meets everyone else in a series of ever-wider circles: students learning from each other in groups or teams in and outside a classroom; teachers learning from students; teachers talking to each other about teaching; teachers reading about how students learn and how other teachers teach; teachers eventually writing about teaching, participating in other ways in the professional conversation that is one of the signs and certifications of the scholarship of teaching.

We have much to learn, and much to add, to that conversation. Cognitive research has brought us dramatic insights into patterns of students' moral and intellectual development. We have begun to understand how teaching styles influence learning and about gender and cultural differences and their direct relationship to learning. Pedagogical research, both empirical and theoretical, has provided data on the quantitative and qualitative impact of new technologies and the multi-mediated classroom; faculty members have not only learned about but are experimenting with new strategies of instruction and demonstration--active learning, collaborative learning, service learning—which test and supplement but do not eliminate traditional modes of presentation, lecture, and discussion.

Whatever directions the professional discourse about learning may point us, the scholarship of teaching begins in the classroom where each of us is principally (but not solely) responsible that learning happens. We identify and draw from our fields and disciplines what we want students to learn: skills of inquiry, skills of analysis, argument, and expression; attention to the pleasures and puzzles of the text, the maps of the genome, the enigmas of politics, culture, and history, the dance of the physical and chemical worlds. Teaching, by its very nature, is exploratory: when we choose our texts, design our syllabi, and devise assignments we are constructing experimental frameworks of learning shaped by the requirements, discoveries, and debates of our disciplines, past and present. Through those tasks we teach our scholarship.

But the scholarship of teaching is not merely teaching our scholarship. Nor is it simply teaching well. It is thinking hard and consecutively about the frameworks we have constructed and how we move within them. As scholars of our teaching we must attend unremittingly to the responses of our students. We must use what we learn about their learning as data that justify or require us to change our practices, and we must make what we learn about our teaching one of the essential topics of conversations within our disciplines. The scholarship of teaching means that we invest in our teaching the intellectual powers we practice in our research.

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When students begin to learn information in an area that is new to them, they frequently feel the information is arbitrary. Without knowing the underlying structures of the information, they can be left with what seem to be random, unrelated facts to memorize. Try this exercise. Read the statements below, spending no more than a few seconds on each.

The fat one bought the padlock.
The strong one cleaned the paintbrush.
The cheerful one read the newspaper.
The skinny one purchased the scissors.
The funny one admired the ring.
The toothless one plugged in the cord.
The barefoot one climbed the steps.
The bald one cut out the coupon.
The sleepy one held the pitcher.
The blind one closed the bag.
The kind one opened the milk.
The poor one entered the museum.

Now, without looking back at the statements, try to answer the following questions.

Which one purchased the scissors?
Which one cut out the coupon?
Which one climbed the steps?
Which one closed the bag?
Which one read the newspaper?
Which one cleaned the paintbrush?
Which one admired the ring?
Which one held the pitcher?
Which one plugged in the cord?
Which one bought the padlock?
Which one entered the museum?
Which one opened the milk?

Most people have trouble remembering which person did what activity. Although there are many ways to overcome this difficulty, perhaps the best is to improve comprehension by explaining why each person did a particular activity. The sentences below are the same as the originals, but have been elaborated with a plausible reason for why the person is performing a certain act.

The fat one bought the padlock to place on the refrigerator door.
The strong one cleaned the paintbrush used to paint the barbells.
The cheerful one read the newspaper announcing that he had won the lottery.
The skinny one purchased the scissors to use when taking in her pants.
The funny one admired the ring that squirted water.
The toothless one plugged in the cord to the food blender.
The barefoot one climbed the steps leading to the vat of grapes.
The bald one cut out the coupon for the hair tonic.
The sleepy one held the pitcher containing water for the coffee machine.
The blind one closed the bag after feeding her seeing-eye dog.
The kind one opened the milk to give to the hungry child.
The poor one entered the museum to get shelter from the snowstorm.

Now go back to the earlier questions and see if you are better able to remember which person did what activity. Most people find it relatively easy to remember who did what when they receive elaborations clarifying reasons for certain activities. These elaborations must be precise, however, that is, they must help one understand why each type would perform a particular activity. Other kinds of elaborations can make sense semantically and yet be imprecise. These can actually hurt memory performance rather than help. Examples of imprecise elaborations for the set of sentences presented above are as follows.

The fat one bought the padlock to place on the garage door.
The strong one cleaned the paintbrush used to paint the chair.
The cheerful one read the newspaper bought at the newsstand.
The skinny one purchased the scissors to use when trimming her nails.
The funny one admired the ring in the jewelry store.

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