Building Confidence and Community in the Classroom

J. Dennis Huston, Rice University

Of all the weaknesses that bedevil my students, none seems to me more destructive than their abiding distrust of their own ideas. I don't know how many times students who have come up to me after class or stopped by my office to ask wonderfully perceptive questions have merely shrugged their shoulders and looked embarrassed when I asked them why they did not ask these questions in class. Apparently, they feared that their questions would make them look stupid. Something in the educational process, then, conditions students not to ask questions, not to voice ideas different from the teacher's, not to risk making a mistake in public. Most of the students who come into my classes would rather remain confused than admit that confusion in front of their classmates.

They feel this way, I think, because our educational system teaches them to feel this way. Too often what students learn, even about the study of literature, is that there is one correct reading for every text—the teacher's—and that any reading which departs from this one is faulty and misguided. That, at least, is how I was taught to read literature in high school, and sometimes in college and graduate school; and that is how most of my students have been taught to read it. In the process these students have not only been robbed of the chance to discover the variety of meaning and emotion in a great literary work; they have also been taught not to trust their own ideas, perceptions, and questions.

To see things differently than the teacher does, they have been
taught, is to get things wrong. And since their education often teaches them to get things right rather than to understand complexity and self-contradictoriness, successful students learn how to subject their own ideas to those of the teacher. They stop thinking for themselves as they more and more learn how to anticipate their teachers' thoughts, until eventually they have so little trust in their own ideas that they dare not bring them out into the open, where others can see them.

The paradigm for this process of suppressing individual thinking seems to me the teaching of drama, particularly Shakespearean drama. For the essence of drama as a form is its variability, its capacity to be different things-sometimes radically different things-in different productions. No actor wants to play a part exactly as another actor has played it; no director wants her production merely to replicate another's production of that work. And yet countless English teachers, in their "discussions" of a play, enforce single-minded, monolithic readings of that work on their students, as if there were one, and only one, reading of every play, a kind of Platonic Idea of that play, to be revealed by critical analysis.

Instead of recognizing that the "text" of a play is really a script, which takes full form in production or in the imagining of a production, too many teachers of drama treat the written work as the finished product-this in spite of the fact that the "texts" of many Shakespearean plays, like King Lear, for instance, are indeterminate. We do not even know which version of the play, the Quarto or the Folio, Shakespeare thought of as his "final draft"-if indeed he thought of plays as having final drafts. Relevant in this context, too, is the dearth of scholarly work on drama which takes any account of what actors have done with or said about parts they have played, as if actors were not intellectually qualified to understand the complexities of critical interpretation.

By teaching drama in such a rigid way-and what English teacher has not done so at one time or another?-we have missed a perfect opportunity to empower students' ideas in the classroom, to help them put aside the self-distrust fostered by much of their earlier education. For drama really does offer the reader a variety of viable interpretations, even when those interpretations are self-
contradictory: Dustin Hoffman and Lee J. Cobb, for example, offer us radically different, but equally convincing—equally "true"—Willy Lomans. And students can understand this fact if we will only help them to understand it by the way we teach plays. Instead of forcing "right" readings on our students, we need to encourage them to see the "text" as the script of a performance.

What does a character look like? What sort of costume does that character wear? What colors? How does the character move? What does her voice sound like? Where does she stand in this scene? Does she deliver a particular speech standing still or moving? What does she do when she is not talking?

By teaching plays in this way, we not only offer students the opportunity to understand and enjoy drama as process, as richly changeable, humanly embodied art. We also can begin to empower them by helping them to build trust in their own ideas. For if the questions we ask have no "right" answers, the students do not have to worry about getting things wrong. They can try ideas out in the classroom—provided they can back them with reason—even when these ideas conflict with those of the teacher and their fellow students. In the process their educational focus shifts from getting the right answers to thinking imaginatively and carefully about questions which have no right answers. They find class exciting because their ideas suddenly matter: people listen to them; their words often appear on the blackboard. And soon they begin to believe not only in their ideas but also in their capacity to articulate them; they become not only more imaginative thinkers but also more effective talkers.

With these new skills, too, comes a sense of developing community in the classroom. Because all of us are sharing our ideas with one another, submitting our perceptions to others' scrutiny and often watching others develop those perceptions, we develop a sense of trust and an esprit de corps. Playing with our own and others' ideas in an undertaking of genuine intellectual inquiry builds confidence in the group as well as in the self: the group becomes an intellectual community bound together by shared experiences, purposes, and productivity.

Too often those of us who teach ignore the importance of building
this kind of community in the classroom. So interested are we in the intellectual content of our subject that we forget that teaching, when it works best, is as much a human as an intellectual enterprise. After all, most of the people we teach are not going to become graduate students and, ultimately, scholars in our own specialty. They are instead going to be doctors, lawyers, engineers, accountants, businessmen, stockbrokers, bankers, advertising executives etc. So our job in the classroom is not to clone academicians like ourselves; it is rather to help produce more educated, articulate, imaginative, excited, disciplined, and interesting doctors, lawyers, engineers etc. And the best way to do this, I think, is to offer them a classroom environment which encourages them to trust their own ideas, their own voices, and their own experience. To do so, we must create in the classroom a community which does not encourage them to read the teacher's mind or to find a rigidly defined "right" answer but instead helps them to think for themselves, to voice their thoughts freely, and to share in a spirit of genuine intellectual inquiry. For only then will they learn what their earlier education has too often taken away from them—the self-satisfaction, joy, and fun which comes from trusting their own ideas and voices.
Burton Clark (1987) points out that the greatest paradox of academic life is that while a majority of professors spend most of their time teaching, that activity is denied commensurate reward by the academic profession. Instead, the most highly valued activity at institution after institution is research and scholarship. Perhaps that explains why the typical vitae lists publications, research grants and other scholarly accomplishments but says little about teaching.

However, change may be in the wind. Colleges and universities are being encouraged to reconsider the importance of teaching. A key question for those that do is, How can professors document their classroom performance? One means of providing such documentation, an approach increasingly recognized and respected, is the teaching portfolio.

**What is a teaching portfolio?** It is a collection of materials documenting teaching performance. It brings together in one place one's most important teaching strengths and accomplishments. The portfolio is to teaching what lists of publications, grants, and honors are to research and scholarship. As a result, it provides an strong signal that teaching is an institutional priority to be considered along with research and scholarship in tenure, promotion, and merit pay decisions.

The teaching portfolio concept has been used in Canada (where it is called a teaching dossier) for at least ten years. Today it is being
adopted or pilot-tested in some form by an increasing number of American institutions.

**Preparing a Teaching Portfolio**

There is no single correct recipe for preparing a teaching portfolio. Since it is a highly personalized product, like a fingerprint, no two are exactly alike. But as Shore and others (1986) point out, a good portfolio for promotion or tenure would normally contain items from three broad areas: the products of good teaching; material from oneself; and information from others.

Possible items for inclusion in a teaching portfolio are shown in the inserts below. These lists are not meant to be all-inclusive nor definitive. Rather, they illustrate the wide range from which to select items relevant to a particular teaching situation.

How much information is needed to fairly represent a faculty member's teaching performance? The question has no simple answer. But experience suggests that 4-6 pages plus supporting appendix material should be sufficient. Keep in mind that the portfolio does not grow indefinitely. It is a living document that changes overtime. New items are added. Others are removed.

Also keep in mind that use of the portfolio for personnel decisions is only occasional (Seldin, 1991). Its primary purpose is to improve teaching performance. Does it actually help improve teaching? The answer is yes. In the process of sifting and collecting documents and materials that reflect the his or her teaching effectiveness, the professor cannot help but: 1) think about personal teaching activities; 2) rearrange priorities; 3) rethink teaching strategies; and 4) plan for the future. Properly developed and used, the teaching portfolio is a valuable aid in professional development.

From experience we know that the teaching portfolio is best prepared in consultation with others. A department chair, a colleague or a faculty development specialist, for example, can discuss with the professor key questions: Which areas of the teaching-learning process are to be examined? What kinds of information do they expect to collect? How is the information to be analyzed and
presented? One caution: whoever serves as portfolio consultant must have wide knowledge of current instruments and procedures to document effective teaching. Faculty development specialists are especially qualified for this role because they are trained in multiple approaches and techniques to demonstrate teaching effectiveness and can provide valuable suggestions and resources as well as important support during portfolio preparation.

Another caution: all college professors have seen poor student work dressed in fancy covers. The point of the teaching portfolio is not a fancy cover. Instead, it is a careful, thoughtful gathering of documents and materials that make the best case for one's teaching effectiveness.

The Ball State University Experience

Since the spring term, 1990, more than 100 faculty members at Ball State University (Indiana) have volunteered to develop teaching portfolios. They have prepared statements of their teaching philosophy, collected materials documenting teaching performance, and worked individually with a portfolio consultant (Seldin and Annis, 1991). Although the original seed money for the project was provided by the American Association for Higher Education, the bulk of the funding has come from the university itself.

What have we learned from the project? Equipped with hindsight and the benefit of research, the authors (who are the project's directors) are convinced that the portfolio concept is sound. It is a practical and immediately useful approach to documenting a professor's in-class performance. Beyond that, we have also learned some key benchmarks for the preparation and use of teaching portfolios.

• Strong administrative backing is essential. Administrators must be publicly committed to the concept and provide the necessary financial support. At Ball State University, vigorous administrative backing played a decisive role in persuading faculty to invest time and energy to prepare high-quality portfolios.

• Open communication is vital to gain faculty acceptance. It must be presented candidly, clearly, and completely to all faculty
members, department chairs, and other relevant administrators before its implementation. The utility of the teaching portfolio as an additional, not replacement, source of information on teaching must be crystal clear.

- **Individual differences** must be permitted in portfolio preparation so long as they are allowed by the department and the institution.
- **Portfolio models** must be available to professors as they prepare their own portfolios to help them see how others have put together documents and materials.
- **Portfolio consultants** must be available to professors. The consultants serve as mentors and offer suggestions, resources and continuous support.
- **The portfolio program needs periodic evaluation**, including an internal feedback mechanism for purpose of regular review. It is comforting to both professors and administrators to know that the portfolio program is being fine-tuned and unfair elements corrected or removed.

The Ball State project pointed up something rather important: virtually all participating faculty members mentioned that in preparing their portfolios, they were forced to think about the effectiveness of their teaching. Why did they do what they did in the classroom? That alone was often a stimulus to teaching improvement. They also enjoyed the project, finding it refreshing to discover from their completed portfolios just how effective they have been in the classroom.

In our judgment the teaching portfolio holds great promise both for improving teaching and for making personnel decisions. We believe that the portfolio concept is an idea whose time has come.

**INSERTS:**

<table>
<thead>
<tr>
<th>The Products of Good Teaching:</th>
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<tr>
<td>* Student scores on pro- and post-course examinations.*</td>
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<td>* Student essays, field-work reports, laboratory workbooks or logs.*</td>
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<td>* Examples of graded student essays showing excellent, average, and poor work.*</td>
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<td>* A record of students who succeed in advanced study in the field.*</td>
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<td>* Student publications or conference presentations*</td>
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on course-related work.* Testimonials from employers or students about the professor's influence on career choice.

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**Material from Others:**

* Student course and teaching evaluation data which suggest improvements or produce an overall rating of effectiveness or satisfaction.* Statements from colleagues who have systematically reviewed the professor's classroom materials, the course syllabi, assignments, testing and grading practices, and reading lists.* Invitations to teach from outside agencies, present a paper at a conference on teaching one's discipline or on teaching in general.* Statements from colleagues who have observed the professor in the classroom as members of a teaching team or independent observers.* Documentation of teaching/development activity through the campus center for teaching and learning.* Statements from colleagues at other institutions on such matters as how well students have been prepared for graduate studies.

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**Material from Oneself**

* A reflective statement of the professor's contribution to the teaching mission of the department or institution.* Representative course syllabi which detail course content and objectives, teaching methods, readings, homework assignments and a reflective statement as to why the class was so constructed.* The pursuit of research contributing directly to teaching one's discipline.* A personal statement by the professor describing teaching goals for the next five years.* Description of steps taken to improve teaching including changes resulting from self-evaluation, time spent reading journals on improving teaching, participating in seminars and workshops on sharpening instructional skill.* Summary of steps taken to identify students with special problems and to design teaching and assessment procedures which facilitate their learning.

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How to get more information: For a copy of Peter Seldin's new book, *The Teaching Portfolio*, contact: Anker Publishing Company, Inc. P.O. Box 249, Bolton, MA 01740. (508) 779-6190.
References

Clark, B. *The Academic Life Small Worlds Different Worlds*


Good teaching is an act of generosity, a whim of the wanton muse, a craft that may grow with practice, and always risky business. It is, to speak plainly, a maddening mystery. How can I explain the wild variety of teachers who have incited me to learn—from one whose lectures were tropical downpours that drowned out most other comments, to one who created an arid silence by walking into class and asking, "Any questions?"

Faculty and administrators who encourage talk about teaching despite its vagaries are treasures among us. Too many educators respond to the mystery either by privatizing teaching or promoting a technical "fix." The first group uses the variability of good teaching as an excuse to avoid discussing it in public - thus evading criticism or challenge. The second group tries to flatten the variations by insisting on the superiority of this or that method - thus evading the demands of subtlety. In both quarters, the far-ranging conversation that could illumine the mystery of good teaching has all but disappeared.
I want to share a few reflections on the mystery of good classroom teaching, whether in large lecture halls or small seminars. I want to name some of its challenges, and suggest some responses, without treating it as a "problem to be solved." Only by doing so, it seems to me, can we enlarge the community of discourse that might encourage more and more of us to teach well.

**The Autobiographical Connection** If it is important to get students inside a subject, it is equally important to get the subject inside the students. Objectivism, with its commitment to holding subjectivity at bay, employs a pedagogy that purposely bypasses the learner's life-story. Objectivism regards autobiography as biased and parochial and hopes to replace it with "universal truth" as told through a particular discipline.

Of course, everyone's story is, in part, parochial and biased. But when we deal with that fact by ignoring autobiography, we create educated monsters who know much about the world's external workings but little about their inner selves. The authentically educated person is one who can both embrace and transcend the particularity of his or her story because it has been triangulated many times from the standpoints of other stories, other disciplines - a process that enriches the disciplines as well. When autobiography and an academic discipline are brought into "mutual irradiation" the result is a self illumined in the shadows where ignorance hides and a discipline warmed and made fit for human habitation.

By intersecting knowledge and autobiography we not only encourage intellectual humility and offer students self-understanding, we also make it more likely that the subject will be learned. When students do not see the connection between subject and self, the inducement to learn is very low. I know a geology professor whose students keep journals on the personal implications of each session to help them remember that the rocks they study are the rocks on which they live. I know a college where students are asked to explore the childhood roots of their vocational decisions (or confusions). In these ways, curiosity about the self can empower curiosity about the world.

When class size prohibits methods such as these, a teacher can help
connect self and subject by giving away one of the academy's best-
kept secrets: the major ideas at the heart of every discipline arose
from the real life of a real person—not from the mind alone, but from
the thinker's psyche, body, relationships, passions, political and
social context. Objectivism tries to protect its fantasy of detached
truth by presenting ideas as cut flowers, uprooted from their earthy
origins. But good teachers help students see the persons behind the
ideas, persons whose ideas often arose in response to some great
suffering or hope that is with us still today.

We teachers can also show students how the ideas we care about are
related to our own life stories. Many students will be surprised to
learn that their teachers—separated from them by gaps of age and
authority and vocation—even have lives. They will be even more
surprised to learn that our intellectual interest arise from the larger
lives we lead, that the two enrich each other. That, after all, is why
many of us became scholars and teachers—and our teaching will
become more vivid as we let the secret out.

**Hearing Students into Speech** If good teaching depends on
drawing students and their stories into the conversation called truth,
then good teachers must deal with the fact that many students prefer
to sit silently on the sidelines. Students have blocked interactive
teaching at least as often as have faculty. Many of them do not want
to suffer the conflict and ambiguity of external conversation, and
some try to avoid inward debate for the same reason.

If we are to treat their condition, we need an accurate diagnosis. It is
inaccurate, though common, to attribute most student speechlessness
to laziness or stupidity—and that diagnosis usually leads to teaching
that is more punitive than provocative. Instead, I suggest, the silence
of many students is the result of disempowerment that leads to
privatization. Students are often marginal to the society by virtue of
their youth, their lack of a productive role, their dependency on the
academy for legitimation. Deprived of any sense of public place or
power, they withdraw into the private realm where they keep their
thoughts to themselves and, sometimes, from themselves.

The remedy is clear: establish a setting where silenced voices can be
heard into speech by people committed to serious listening. The
classroom can be such a setting-if the teacher will work hard to gain credibility with the students who have learned that silence is the safer way. Credibility comes as the teacher empathizes with the voiceless and with their struggle to speak and be heard.

There are many practical ways of "hearing people into speech." Teachers who must lecture much of the time can honor minority viewpoints on their subjects, giving minority students a sense that alternative voices can be spoken and heard. Even in the largest classes, it is not necessary to lecture all the time; materials can be presented by questioning (as in the "microcosm" approach), and, if the questions are neither rhetorical nor catechetical, students will want to respond. When those responses come, teachers can hear people into speech by respecting their responses - which does not require assenting to false claims. The familiar problem of a few students speaking a lot while the majority remain mute can be controlled in many ways; I sometimes allow each student only three chances to speak, thus allowing the quieter ones to find an opening.

With smaller classes, when a divisive issue is up for debate and my students retreat into privatism, I sometimes give each of them a 3x5 card and ask that he or she write a few lines expressing a personal opinion on the issues. I collect the cards and redistribute them so that no one knows whose card he or she is holding. Then I ask each student to read that card aloud and take sixty seconds to agree or disagree with what it says. By the time we have gone around the group, the issue has been aired, diversity has been exposed, the unspeakable may have been spoken, and a foundation for real conversation has been laid.

The Courage to Teach

The word "courage" comes from a root that means "head," and I like to transpose the words. How can we develop and sustain, in ourselves and each other, the heart for good teaching (assuming that the mind is already available)? Good teaching requires courage - the courage to expose one's ignorance as well as insight, to invite contradiction as well as consent, to yield some control in order to empower the group, to evoke other people's lives as well as reveal one's own. Furthermore, good teaching sometimes goes unvalued by academic institutions, by the students for whom it is done, and even by those teachers who do it. Many of
us "lose heart" in teaching. How shall we recover the courage that good teaching requires?

In its original meaning, a "professor" was not someone with esoteric knowledge and technique. Instead, the word referred to a person able to make a profession of faith in the midst of a dangerous world. All good teacher, I believe, have access to this confidence. It comes not from the ego but from a soul-deep sense of being at home in the world despite its dangers. This is the authority by which good teachers teach. This is the gift they pass on to their students. Only when we take heart as professors can we "give heart" to our students - and that, finally, is what good teaching is all about.
Tales told out of school: Women's reflections on their undergraduate experience

Blythe Clinchy, Wellesley College

Some years ago I reported encountering what is known in the psychological research game as a "pointing study," which struck me as a metaphor expressing what we do to children and adults in our teaching (Clinchy, 1987). In this procedure, a child is presented two objects, one hiding a plastic trinket. If the child points to the correct object, he gets to keep the trinket; if not, he goes away empty-handed. The child is not asked to speak, only to point. Now, you'd think that if you were trying to understand why children choose an object, you'd ask them. But asking apparently is too messy for research. You can understand why. For one thing, asking leads to words and words are troublesome; they require a lot of transformation before you can crunch them into the computer. And another thing: If you ask a child questions, you treat him as a source of knowledge. You assume that he knows something that is worth listening to. Your "subject" turns into an informant. If you don't watch out, he might turn into a colleague, and you, the experimenter, might become less of an authority.

In the particular research study I wrote about, the researcher had actually taken special precautions against any such eventuality. Interposed between the child and the experimenter was a semi-opaque screen so that the child and experimenter couldn't see each other. Someone asked the researcher what the screen was for. After a
moment's hesitation, he finally remembered that the table-screen apparatus had been left over from some previous experiment, he needed a table and the screen wouldn't come off. Anyway, he said, the screen turned out to be useful, because - and I quote - "it keeps the kid from talking to me too much. You know, if the screen wasn't there, he'd want to talk to me. He'd say irrelevant stuff like, 'Who are you?'"

It occurred to me at that point that this image of a researcher at one end of the table, the child at the other, and the screen interposed between them was similar to one which kept cropping up in the stories women had told me about their educational experiences in the various research studies my colleagues and I conduct. Let me try to say why.

I have come to believe that the traditional liberal arts college, like the traditional experiment, is designed in ways that make it very difficult for even the most thoughtful and creative teachers to make connections with their students and to help the students make connections with the material they are studying. It puts a screen between us and them so that we never hear the real questions, the real thoughts they want to express. As Carol Gilligan once reported one of her interviewees saying, "Do you want to know what I think? Or what I really think?"

**Connected Knowing** Our research - and the research of others - leads us to believe that many students - especially, but not exclusively women students - have a proclivity for an approach to knowledge which we call connected knowing. When they encounter a new idea, they try to enter into it, to attach themselves to it, to establish a kind of intimacy with it. If, for instance, they are studying an essay by a philosopher, they try to get behind the philosopher's eyes, and think along with him, following his argument step by step. They want to learn about the philosopher's life, about him as a person, so that, in Peter Elbow's phrase, they can "share the experience" that led him to his ideas; this, they think, will help them to understand his thinking. At least at first, they don't want to criticize the position, to "tear it apart;" first they want to understand it from the philosopher's perspective before making a decision about it from their own.
These women soon learn that this way of knowing is considered out of place in the academy. Their teachers give them few opportunities to practice connected knowing and little tutelage in developing it. What is desired and what is taught is what we call separate knowing: a way of knowing that is objective, impersonal, detached, and critical. Separate knowing is the only way of knowing—or at least the dominant form of knowing—that most of us teachers were taught, especially in graduate school. The system as a whole is geared toward separate knowing, forcing most of us, to be fundamentally separate in our teaching as well as in our thinking.

**Connected Teaching** Many students yearn for a more connected form of teaching. They want to connect with the material, its origins and the teacher as a person. Some teachers resent their women students’ penchant for, as they put it, "personalizing everything." From the perspective of separate knowing, the relationship between teacher and student should have nothing to do with learning, but, from the perspective of connected knowing, it clearly does. For many women—and perhaps for men as well—development takes place in the context of personal relationships, and the quality of the relationship affects the quality of the learning.

Researchers have repeatedly found that for women, the most powerful learning experiences in college occur outside the classroom and in the context of informal encounters with faculty and advisors. For example, Light (1990) reports that when interviewed about advising, Harvard men reported wanting an objective advisor who will provide the relevant information, which they will use to make their own decisions. The women want their advisors to be objective, too, but objectivity has a different meaning for them. When asked "what does it mean to be objective?", young women respond "to put yourself in the other person's position, to forget what you think and take their perspective." And why be objective? "So you can help a friend make a decision that's right for her, in her terms. It's this soft of connected objectivity that women want in their advisors, and I believe, in their teachers as well.

Teachers, of course, need to know "the facts" about the material, but if our task as teachers is at least partly to arrange a marriage between the student and the content, then it behooves us to know something
about the student, too, especially about the relationship she presently has to the material. And the system as it stands conspires to keep us at a distance from the student and the student at a distance from the subject matter.

Some degree of distance between teacher and student is appropriate. And, in most cases, students do not want to share the intimate details of their personal lives with their teachers, nor do their teachers wish to hear them. But the intimate knowledge I think a teacher needs is not of this soft. It's things like students' conceptions of themselves as learners; their notions as to why they speak up in class and why they don't; where they think the syllabus comes from; what are the purposes of the various disciplines; whether there is only one correct interpretation of a poem and if so how you find out what it is and if not are some interpretations better than others and if so how can you tell; and what are their naive concepts of aggression or correlation or history or heat or whatever it is you're trying to teach. In shod, what are the students' attitudes and assumptions and conceptions and intuitions and even feelings about this enterprise upon which we are jointly embarked?

In a recent article Dorothy Buerk, a teacher at Ithaca College who is trying to help alienated students "connect" with mathematics, and a former student, Jackie Szablewski, (1990) tell the story of Jackie's experience in Dorothy's Writing Seminar on Mathematics. Dorothy asked her students to use metaphors to represent their experience with mathematics. In her first journal entry, Jackie used a metaphor we have seen in many other students: the student, she writes, "is in the role of the tourist who merely looks out at the sights that surround him as they travel past in a blurred rush."

Within each course, we keep them moving at a brisk pace so as to ensure coverage of all the important topics listed in the syllabus; no dawdling allowed. Across courses, students are expected to apportion their time evenly enough to do well in everything, regardless of the degree of attachment they may feel for a particular course. This system pretty much assures that no student will become immersed in any one topic or any one course.

In Women's Ways of Knowing (Belenky, Clinchy, Goldberger and
Tarule, 1986), we tell about a student who almost slipped through this system, catching herself just in time. She said, "I remember last semester getting really almost terrified when I was studying for finals, because all of a sudden I got so wrapped up in the material. I hadn't put it down for a while. And I just realized, you know, that it was really exciting to do all this stuff. But if you did that all semester long, you'd go crazy." You can't afford to get behind. The tour bus is leaving for the next landmark.

How sad if our students experience their education like a whirlwind tour of Europe. How much better if we could all get off the bus and spend some time getting to know the locals. How much more effective we might be if we allowed the students to become "connected" to the material, to find the relationship between themselves and the content. It would require connected knowing, the suspension of judgment and the use of deliberate procedures for eliciting and attending to students' narratives of experiences related to the material we are studying. It requires that when we ask a student, "Why do you think that?" we make it clear that we mean not "How can you justify that point?" but "What in your experience has led you to that idea?"

Like the researcher at the beginning of this piece, we have inherited an obsolete piece of equipment. But for us, the experiment is not over. There is time to dismantle the equipment, to deconstruct the system we have inherited and reconstruct it in a way that is liberating to students and teachers alike.

References


Whatever Happened to THE Faculty?
Jack H. Schuster, The Claremont Graduate School

Interviews with older faculty members about the quality of academic life frequently touch upon ---sometimes dwell upon ---a plaintive theme: the loss of a sense of community and shared purpose within the academy. Conversations with senior academics often are sprinkled with images of a simpler and (it would seem) happier time, with faculty colleagueship perceived as having been more genuine than illusory.

The images call for the soft brush strokes of the Impressionists to capture the warmer hues of that gentler time: Faculty members gathering in late afternoon for a game of billiards at the faculty club. Faculty meetings burrowing in on truly important teaching-learning issues. In sum, faculty for whom the life academic was still more likely to be regarded as a calling, less a mere occupation (albeit a distinctive one). Wistfully these informants recall an academic landscape featuring administrators who could be trusted (not like their management-obsessed descendants); students who valued learning not just as a passport to lucrative employment (more such students, at any rate, than their career-fixated, underprepared successors); colleagues who cared more about their campus'well-being than about cosmopolitan careers driven by external grants.

I've conducted dozens of such interviews in recent years that are in no small part lamentations, yearnings for an era long past. I sometimes wonder whether their recollections have perhaps been seriously distorted by the passage of time and skewed further by
comparison to the harsher realities of the contemporary academy (and society). Are their reports a product of a fuzzy romanticism that obscures some of the hard facts of bygone academic life, like subsistence-level compensation? Can so much have changed so rapidly?

After all, these accounts are not garnered from histories of a long ago era. These interviews were not conducted with enfeebled nonagenerians recalling a distant past, but rather with vigorous men (the great majority men, anyway) typically now in their sixties. They are referring to times easily within living memory: the mid-1950s and 1960s. The questions arise: Was there really something approximating "the faculty" a mere quarter century ago? An academic community in actual being, not merely a nostalgia-induced present-day illusion? And if "the faculty" once existed, what became of it?

**Some Musings from History** The history of the academy demonstrates that once upon a time there was indeed "a faculty." Or the faculty," if you prefer. A collective joined by common purpose and widely-shared values.

In its embryonic years, stretching across several centuries, the medieval university was rationally ordered, singular in orientation. The "universitas" surely was not conflict-free; it struggled for its niche between religious and secular authority. Nonetheless, "The medieval university had a principle of unity. It was theology" (Hutchins 1936, p. 96). In some instances colleges were literally enclosed communities, including, but not limited to, the elegant Oxbridge quadrangles. There was an internal cohesion within academic communities, not so cohesive (fortunately) as to drive out all differences, but a bonding force nevertheless. The faculty was, on the whole, the faculty. As Clark Kerr (1963, p.1) reminds us, "The university started as a single community... It may even be said to have had a soul in the sense of a central animating principle."

Was this long-ago version of "the faculty" a relic that failed to outlive its guild-like medieval origins? No. Was "the faculty" doomed to perish with the increasing complexity and societal tensions of The Enlightenment? No. Was "the faculty" destined not to survive
beyond ante-bellum America? No again.

The rise of American universities in the last quarter of the Nineteenth Century, characterized by the irreversible forces of specialization and the salience of academic departments, weakened but did not cripple "the faculty." Inevitably, though, the mounting centrifugal forces began to take a heavy toll. The "great universities" at the turn of the century, while small indeed compared to the behemoths that many of them were to become, still resembled comprehensible communities. Harvard's total enrollment in 1889-90 was about 2100 and by 1909-10 rose to nearly 4100. In the same period Yale had more than doubled from 1500 to 3300. Among the publics, the University of California (meaning Berkeley) had sprouted from 400 to 3300; Michigan from 2200 to 4600 (Slosson, 1910). The average number of faculty per institution, which had been 10 in 1870, reached 38 by 1909 (Harris, 1972, p. 453). Hardly giants by today's norms, universities had nonetheless grown not only much larger, but also considerably more complex.

Campuses were still more-or-less simple organisms during the 1930s and 1940s. Compared to the post-war era, enrollments and physical plants were much smaller. There were many fewer administrators and other support staff. And "the faculty" was much more compact. They knew one another reasonably well even across disciplinary boundaries. The small scale and the still relatively uncomplicated nature of knowledge made a faculty community plausible. In fact, I would argue that important elements of the putative faculty community persisted into the mid-1960s or thereabouts.

**Yes, Virginia, There Was "The Faculty"** Although not as much communal cohesion survived as had existed prior to mid-century, and despite the challenges that have always faced scholars in their efforts to appreciate (much less comprehend) one another across the barriers of academic specialty, it is not too idyllic a notion to say that "the faculty" existed just a few decades ago. Did they love one another in communal harmony? Not very often, I imagine. Did they at least respect one another within limits? Well, academic lore is replete with nasty intracampus personal and professional feuds. Were some faculty members even in that more egalitarian era "more equal than others?" But of course. So, we should not get carried
away with the vision of a Golden Age that never was: an age, after all, when faculty compensation ranged from poor to miserable, when autocratic rule had many champions, when faculty were much more vulnerable. Walter Metzger (1970) provides a sobering assessment, albiet writing in turbulent times: "The annals of colleges and universities offer less a glimpse of Eden than of Armageddon."

Even so, a reasonable approximation of "the faculty" still existed a quarter century ago. It is all relative, of course. But the evidence of the times shows a greater expanse of common ground a more widely shared notion of institutional purpose and priorities and, indisputably, a much more homogeneous faculty (which is to say, overwhelmingly white male).

As enrollments, budgets, faculty, support staff, regulation --- everything --- continued to grow, the scale of things simply became less manageable, and common ground eroded steadily. The forces of dispersion have been accelerating relentlessly ever since. Consider four familiar megatrends long in evidence but still gathering momentum:

**Specialization.** By the beginning of this century, the process of academic specialization and the segmentation by fields of study were so advanced that those who championed general and liberal education had already been "overwhelmed by wave after wave of specialists". Indeed, the generalists "had already lost the main battle" (Clark, 1987). But the extent of specialization circa 1900 was nothing compared to recent times, symbolized by the launching of almost 3,000 new micro-specialized academic journals annually during the 1980s (McDonald, 1990) and the publication of an astounding 3,000 or so articles in scientific journals every 24-hour period (Schuster, 1990). (For the mathematically inclined, that computes to two articles every minute of the year!)

**Market pressures.** The iron grip of the academic marketplace has skewed compensation differentials by field to unprecedented extremes while similar pressures have led to compression among ranks in hard-to-hire fields. Perceived inequities and resentments abound (Hamermesh, 1988).
Diversification by ethnicity and gender. Long in arrears and still lagging far behind an equitable distribution, progress toward diversifying the faculty has been painfully slow. Even so, the demographics of a once much more homogeneous faculty have been significantly altered.

Dilution of the "regular" faculty. For several decades now an increasing share of faculty work has been allotted to non-regular (that is, part-time and short-term) instructional staff. (In Britain, the unflattering term "lump lecturers" is sometimes used.) Current estimates suggest that close to two-fifths of all U.S. faculty, by headcount, hold non-regular appointments. While their contributions are mighty, their presence in such unprecedented numbers further undermines the core faculty.

This recital of the obvious is not intended to lament the passage of an era. Rather it is to underscore that new realities challenge the academy at every turn to recapture a sense of common purpose. To be sure, faculties at some small colleges appear to have maintained throughout volatile times a well-functioning faculty community (Rice and Austin, 1988; Austin and others, 1991); workable scale, dedication, and leadership make that possible. But their good fortune accounts for only a small fraction of all faculty members. What about the vast majority of faculty who work in campuses larger by far and much more complex? Can some semblance of a faculty collegium be restored?

The Challenge This accelerating fragmentation of faculty has great significance for those of us who shape today's universities, as well as for those who prepare the faculty of tomorrow. The challenges undoubtedly will continue to multiply as the faculty increasingly splinters, but the outlook is not so grim as this account might suggest.

For one thing, the resurgence of interest in teaching --- a product of many forces reinforced by the potent assessment movement may serve not only to restore more respectability to teaching but also to strengthen that bond among a great many full-time faculty members.

Beyond the partial rehabilitation of teaching, a splendid opportunity
inheres in the unprecedented numbers of forthcoming faculty hires, a function of the several hundred thousand retirements to occur over the next decade and a half. This inevitability in turn means that the academy --- through its graduate programs and professional development activities --- can try (must try) much harder to inculcate in prospective and new faculty a keener sense of common purpose and a renewed respect for teaching.

The search for community is never easy (Palmer, 1987); the emerging academic seller's market, by shifting bargaining power to individual faculty members, can be a boon or a bust for those who seek to reweave an academic community. It boils down, in a fundamental way, to a matter of institutional priorities.

**Whatever happened to The Faculty?** Gone --- and never to be reassembled. But the dispersion of faculty into their "small worlds, different worlds" (Clark, 1987) does not foreclose opportunities; in important respects, it improves prospects, to better equip the faculty to become more effective teacher-scholars.

**References**


Many college faculty teach the way they were taught, emulating favorite teachers while updating specific techniques. The pedagogical choices they make --- the HOW as distinct from the WHAT of teaching --- often reflect the teacher-student interactions they themselves once experienced. As academic success stories, or at least as academic survivors, college faculty feel reasonably well served by the prevailing academic culture, understand its values and norms, share in its beliefs and have learned to participate in the rules of its games.

In academe, as in any culture of origin, many of the most sacrosanct practices remain unstated, unexamined and unacknowledged unless they are challenged by divergent beliefs from outside the predominant culture. Not surprisingly, many of these traditionally sanctioned classroom procedures constitute an "implicit" or "hidden" culture for students who have not already been socialized into the academic culture through previous schooling or a congruent home or community culture (Condon, 1986). For example: classroom engagement in competitive or assertive behavior; acceptance of grading curves by which one's gain is the other's loss; these are likely to be in conflict with cultures that do not endorse individual success at the expense of one's peers or that value modesty over assertiveness.
The role of college faculty in transmitting a dominant cultural system is especially important since, in higher education, all roads lead back to the faculty, who have control in matters of teaching, evaluation, and curriculum. Thus, the teaching/learning discourse in college classrooms is in itself a cultural situation, even before one begins to consider the multicultural challenges mounted by students coming to college from non-European racial, ethnic, or non-English-speaking backgrounds. Examples of this dominant academic cultural style, characterized by the acquisition of course content or disciplinary knowledge and practices, exposition and coverage of information, and the lecture as the method of choice, reinforce one set of culture-specific classroom practices, while making alternatives seem awkward or cumbersome (Moore, 1990).

However, if all roads in higher education lead back to the faculty, then the call for multiculturalism depends upon faculty acceptance and implementation. The difficulty for faculty of knowing how best to facilitate content-driven learning within a multicultural classroom can lead them, unwittingly, into the stance of seeming to preserve academic standards when in fact transmitting an unexamined culture. It seems urgent, given our acceptance of multiculturalism as a 21st Century norm, that college faculty be shown some teaching strategies that help them make informed teaching and learning decisions in the process of reconsidering their norms as well as their practices.

It is helpful to acknowledge two major ironies that multicultural teaching approaches bring to light in traditional classroom practice. First, although the match of the traditional classroom culture to the learning style of traditional students was never perfect, actual cases of mismatch were disguised by student drop out, stop out, shifts of major or transmutations of learning style accomplished in all sorts of personal ways. Ironically, the issue of classroom culture did not emerge for general discussion until it was dramatically raised by divergent cultural values and beliefs or by a level of unsuccessful academic performance at odds with commitments to educational access and opportunity.

But a second and even more insidious irony is presented by the general absence of conscious cultural identity among many students
of white European-American descent. This absence of conscious cultural identity obscures the larger issue of cultural difference, reduces all cultural experience to a single dominant norm, and dismisses as frivolous the culture-consciousness of other students who have learned how to value their own ethnic roots.

In other words, it has remained possible for students from the dominant culture to disregard the fact that theirs is also a culture and thus to regard "difference" in culture as meaning merely a greater or lesser departure from their norm. Even the mistakenly-termed "model minority" of Asian-American college students can be faced with cruel and unnecessary bicultural dilemmas as they attempt to balance learned cultural values of conformity, modesty, non-assertiveness, interdependence and cooperation with the new behavioral expectations of assertion, independence and individualism demonstrated daily in college classrooms. Students from social groups not holding to the dominant cultural framework can easily be misunderstood by their teachers as underprepared, unmotivated or "culturally deprived" (meaning "unintelligent").

**From Culture-deficit to Culture-difference** So powerful and pervasive are the folkways of academe as reinforcers of traditional academic practice that it is understandably difficult for college faculty to see beyond their own acculturation and to imagine alternative possibilities for instructional design. Individuals who work with international students are continually confronted with their own academic cultural assumptions as they try to explain the mysteries of American student behavior to international teaching assistants. Such forced confrontation with implicit values raises their overall level of sensitivity to the potential for intercultural conflict.

The cultural pathways which differentiate African American, Latino, Asian and Native American racial and ethnic cultures' "ways of knowing" from ways of knowing traditionally sanctioned by college instruction and assessment have been described in a school ethnography research tradition that documents the ways in which students from non-dominant ethnic groups experience incompatibility with the dominant culture of higher education (Tharp, 1989). This research calls attention to the ways in which racial and ethnic cultures experienced in families and home communities of
students from non-European non-white backgrounds --- possibly the first generation family members to attend college --- are not likely to match the dominant culture of higher education.

And there are further complications: First, there is no consensus within the research tradition to connect cultural "ways of knowing" based on race or ethnicity directly to classroom learning, although some studies of cognitive style are headed in that direction. Second is the danger of creating new stereotypes. Broad generalizations about culturally different learning styles can too easily be misunderstood as euphemisms for "deficits" calling for "remediation" or acculturation on the part of the student rather than flexibility and response on the part of the instructor.

Earlier it was noted that all roads lead back to the teacher. More exactly, all roads lead back to the flexibility of the teacher's instructional design repertoire, and his or her readiness to draw upon a range of cultural styles. The reasons to do so are various and it is worth repeating them briefly in conclusion here.

1. A variable, flexible repertoire of teaching strategies will enable college teachers to match the cultural styles of students from targeted social groups with complementary teaching strategies.

2. Because such teaching is effective teaching, it will also match individual learning differences among traditional students as well.

3. A college teacher's repertoire of flexible and variable teaching strategies exemplifies for all of his or her students the multicultural value of reciprocity rather than the monocultural expectation of acculturation.

4. Finally, active engagement in collaborative group learning enterprises might well foster student to student experiences across cultural differences, establishing a better basis for mutual understanding and trust.

References


The Market for Teaching Scholars

Laurie Richlin, Visiting Scholar, Antioch College

The disparity between the research training of the PhD students who become the next generation of faculty and the need for those new faculty to be able to teach has led to increased dissatisfaction among the deans and department chairs who hire them. The on-the-job activities of new faculty members call for knowledge and skills not inherent in the standard PhD program. In all fields, at all institutions, the greatest need is for scholars to teach undergraduates. In contrast, the overwhelming majority of American faculty never publish anything after their dissertation material.

In order to broaden the perspective of faculty efforts, Boyer (1990) and Rice (1990) have proposed four types of scholarship necessary for the American faculty:

1. DISCOVERY, the search for new facts; creation of new knowledge/new theory in a disciplinary specialization;
2. INTEGRATION, synthesis of disparate views and information in a disciplinary specialization;
3. APPLICATION, reflection on practice; creation of new paradigms of professional competence; and
4. PEDAGOGY, representation of knowledge; creation of new ways to draw the field together to connect knower and learner.

Boyer (1990) calls for having all four types of scholarship active within American higher education institutions, suggesting that individual schools could specialize in particular scholarships, or that
faculty members could focus on different scholarships during various stages of their careers. Unfortunately, programs that award the PhD degree, the "union card" for faculty, have been designed predominantly to train graduate students to perform and value only one type of scholarship: acquisition of new knowledge. Certainly the large majority of faculty who never publish anything during their careers, except that which comes out of their dissertation research, shows of how little interest that type of scholarship is to those who are forced to do it. Even with departmental reward systems designed to encourage a wide range of faculty activities, if graduate students are not selected, motivated, and educated to do other than narrow discovery-type research, it will not be done. To cultivate a diverse faculty we need to begin at the beginning.

A Reality Test: Is there a market? The success of encouraging graduate students to work in the variety of scholarship categories would depend on the willingness of doctorate-granting departments to award the PhD for alternative doctoral programs and the willingness of departments to hire graduates of these programs. In order to find out how open the doctoral programs (the "providers") and departments in non-doctorate-granting schools (the "consumers") are to the alternative scholarships, the deans of graduate studies (providers), academic deans (consumers) and chairs of departments of biology, history, mathematics and psychology (providers and consumers) at 251 U.S. colleges and universities were surveyed. Respondents were presented with four different graduate programs. Each program had the same coursework, focused on disciplinary knowledge, and leading to qualifying exams. What differed was the type of scholarship the student used for the dissertation: discovery, integration, application or pedagogy. Providers were asked whether they would award the PhD for each dissertation type and consumers were asked their likelihood of hiring graduates for the corresponding program. A comparison of providers and consumers in their willingness to grant a PhD or hire the candidate respectively is shown in Figure 1.
**Discovery** For the traditional discovery orientation, there was almost universal agreement among providers that they would grant the doctorate. Among consumers, however, there was less agreement, with the numbers declining along the continuum from the Carnegie classification of Comprehensive 1 to Liberal Arts 2. Obviously, many departments have found hiring faculty with a strict research orientation not to be useful for their campuses.

**Integration** Providers were much less willing to award the PhD for integrative dissertations than they were for the discovery type. Barely over half of the Research 1 Universities said they would do so. On the other hand, consumers were very open to hiring PhDs with integration scholarship.

**Application** Providers were even less willing to grant the PhD for application-oriented dissertations. There was considerable interest among consumers, however, in hiring graduates with application scholarship.
Pedagogy The greatest difference between the providers and consumers was reported in the area of pedagogical scholarship. Approximately two-thirds of provider department chairs and deans said they would not award the PhD for dissertations done on the way knowledge in their field was taught or learned. Consumers, however, showed considerable interest in hiring PhDs with pedagogical scholarship. The information reported by consumers in this study clearly shows that there is a market for PhDs better prepared in their graduate programs to become college teachers. Combined with the problems already being reported by some sectors (and expected by all) in finding qualified college teachers, it also is evident that there are (and will be) positions waiting for PhDs whose dissertation research is concerned with how to transmit disciplinary knowledge to undergraduates. A pedagogically-based PhD program would need to fulfill (and be perceived as fulfilling) the same high scholarly requirements associated with traditional disciplinary PhDs. To do so will require broadening the concept of scholarship within the disciplines, making pedagogy an intellectual activity, which is, as Schulman says, "very tightly coupled to scholarship in the disciplines themselves" (1990).

The Two-way Street Graduate programs, the providers of new faculty, must recognize the need to develop and encourage a diverse range of scholarly talents. Hiring institutions, the consumers of new faculty, must communicate their need for high quality, well-rounded individuals representing the broad range of scholarship rather than a narrow concentration on the creation of new knowledge. The reports from the field indicate that what is wanted are future faculty with a broad (rather than specialized background) in their discipline, able to teach a wide variety of courses to undergraduates. Designing programs to educate the faculty of the future in both discipline and pedagogy is the next important intellectual task for the reflective practitioners among the graduate faculty. New visions of scholarship depend on finding models of graduate education which will attract and inspire our best and brightest undergraduates to pursue an academic career, bringing and developing their own ways of thinking.
References


Making Sense (and use) of Written Student Comments

Karron G. Lewis, The University of Texas

"These comments don't make any sense. Some of the students say things are going fine and others say this is the worst class they've ever had. I can't please everyone, so why try?"

Have you shared the feelings expressed above as you go through your own student evaluations? Many instructors have. And, because of this, they may be tempted to dismiss the important things these comments can say about their teaching and their students' learning. On the other hand, many instructors also say that they get more information from student written comments than they do from the scaled items so typical of student evaluations. Which is correct? Should we dismiss these student comments or embrace them?

The problem arises from the fact that written comments don't have a built-in structure like scaled items. They don't come to the instructor compiled into a nice, neat summary. Instead they are usually read straight through from the top of the stack to the bottom, so that they seem to be just a series of random, unconnected statements about the teaching and the teacher. Under these circumstances, it is difficult for the human mind to make sense of any type of information. There is a need to impose structure and organization on information in order to make it comprehensible. The purpose of this article is to suggest some ways to impose some structure on these student comments so that they will make more sense and possibly give some better insights into teaching which might be obscured by a more random presentation.
**Sorting by respondent**  Consider the following statements from an engineering course which students generally regard as difficult:

1. More lecture would help. More explanation of how to do the problems, not just examples. When exams come, I can usually do the problems assigned or worked in class but the new ones are completely foreign. 2. Would rate the course higher if I were understanding material better. 3. Inability of the instructor to communicate with me during the lecture. He jumps from one thing to another. He is not consistent and he does not finish the job. (To help us understand the whole thing.) In conclusion, his teaching technique is not right. 4. The only complaint I have is that the exam problems are always more complex than the homework problems and require too much time. 5. Makes me want to understand the material and making sure I know the concept and mathematical procedures.

Questionable grammar and construction aside, if one looks at the scaled course ratings, one finds the students distributing their overall rating of the course as follows:

Excellent = 2  
Above Average = 14  
Average = 5  
Below Average = 4  
Poor = 2

From these ratings one might conclude that the students generally feel the course is all right, but there are a few things which might be changed to make it better. The written comments, on the other hand, certainly indicate that there are some areas of difficulty. How can the instructor sort out this information to make it more helpful and to reconcile the two results?

The first thing which can be done is to group the comments according to the overall course rating given by each student evaluator. This provides a context for the comments, which now read in this order (refer to full comment):

Excellent (2)--- no comments  Above Average (14) --- The only
complaint I have.. --- Makes me want to understand Average (5) --- Would rate course higher if Below Average (4) --- More lecture would help.... Poor (2) --- Inability of the instructor...

<table>
<thead>
<tr>
<th>RATING</th>
<th>SUBJECT MATTER</th>
<th>ORGANIZATION CLARITY</th>
<th>INTERACTION</th>
<th>DYNAMISM ENTHUSIASM</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Exams more complex than homework</td>
<td>Exams too long</td>
<td>makes sure students understand</td>
<td>makes me want to learn materials</td>
</tr>
<tr>
<td>2</td>
<td>Would rate higher if I were understanding better</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>needs more lecture exam. prob. harder</td>
<td>needs more explanation of how to do problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>Inability to communicate material to students</td>
<td>jumps from one thing to anotherinconsistent</td>
<td></td>
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</tr>
</tbody>
</table>

Listing student responses in this way has a number of benefits. To begin with, the more positive feedback will be read first, which is not only easier to take, but it will help determine whether students are generally satisfied or dissatisfied. It may also show that some students who are satisfied have the same concerns as some who are less satisfied. In the comments listed above, one student who rated the course "Above Average" and one who rated it "Below Average" both said that the exam problems were more difficult than those in the homework.

**Adding a second dimension** Though just classifying the student comments according to their overall course ratings can give the instructor a more realistic view of his or her teaching, adding another dimension can show where changes might be made. The dimension
shown below is based on five components often cited as characteristics of effective teaching, but an individual instructor can create any set of components which seem to fit the particular course or teaching goals.

1. Analytic/synthetic approach to the subject matter
2. Organization/clarity
3. Instructor-group interaction
4. Instructor-individual interaction
5. Dynamism/enthusiasm

Using the matrix shown in the figure, the instructor can place student comments from the engineering class according to the rating the student gave to the course and the characteristics of effective teaching. After filling in the matrix, one can see that those students who rated the course higher indicated that the main problems they encountered concerned the exams. They also had a positive feeling about the instructor. On the other hand, students who rated the course lower seemed to need more assistance in structuring the content and determining what was and was not important. This increased specificity could aid the instructor in determining what instructional adjustments might benefit which students.

**Improving the comments** If the instructor wanted to take this process one step further, he or she could provide the students with the categories shown on the horizontal dimension of the matrix at the time they are filling out the evaluation and encourage them to comment on whichever of the topic areas they felt had some meaning for them. Many instructors already take this step by appending some specific course related questions to the standard forms. This practice helps the students structure their written comments more succinctly and yet more completely since it triggers their thinking about what is of interest to the instructor. Of course, one would always make one category an open-ended item in which any other comments could be made.

**The happy ending** The combination of these techniques for analyzing and improving student written comments can help the instructor gain insights into how different students learn best in a given course so that instructional efforts can be more tailored to their
needs. It has the added advantage of keeping the instructor from over-reacting to a single negative comment, a constant of human behavior in reaction to evaluation. Finally, it can help the instructor avoid the frustration of dealing with seemingly contradictory comments, which might be giving student evaluations the undeserved reputation for unreliability. In the end the instructor will find that bringing a little order to the chaos of written responses will reveal the treasure of information they can provide.

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