Leading the Seminar: 
Graduate and Undergraduate

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Background Although many teaching methods in higher education have changed over the past century, the research seminar has remained largely untouched by innovation. Following a model created in German universities, the seminar is a course in which advanced students conduct original research under the close guidance of an expert in the field. The basic format is still used today for graduate and undergraduate seminars in many disciplines.

Typically, in graduate seminars students are expected to write "publishable" research papers and write and deliver critiques of selected readings from the course bibliography. The syllabus, if one is provided, usually consists of a term calendar that specifies the deadlines for assignments. Class meetings are taken up with discussions of these readings, and it is not unusual for class to be dismissed for the last third of the term in order to provide more time for students to research and write their papers. Undergraduate seminars often follow the same pattern, albeit with lessened expectations for student performance.

This approach to conducting seminars is often successful, but a number of problems are also associated with the model. For example, students may find that the subject matter is so complex that they have difficulty selecting a research topic until late in the term, which usually results in haphazard research and sloppy writing. Some students may elect to take "incompletes" (if that is an option) so they can produce a better paper, but this practice leaves them with a debt
that drains time from future courses. The usual class format, critiques of readings followed by discussion, can become extremely boring and students may fail to connect the readings with important issues in the course. If a teacher narrows the seminar topic to conform to his/her current research interests, it can become too specialized to stimulate student interest. Finally, seminars may fail simply because teachers don't prepare for them as carefully as they do for other classes, out of a conviction that it is the students' responsibility to "find their own way." These problems can be avoided (in both graduate and undergraduate courses) if we conceptualize the seminar differently, clearly communicate our expectations and outcomes, and experiment with more creative assignments and cooperative classroom activities.

**Remedies** As a first step, it is useful to think of a seminar as a course in which students practice critical thinking about the discipline and learn about research methods commonly used in the field (rather than a course in which students write an extensive research paper). The emphasis is on thinking about the discipline, an activity that should occur frequently in both graduate and undergraduate courses. Students can still be required to write traditional seminar papers if that activity is appropriate for achieving the course outcomes.

**Planning the Seminar**
With this definition in mind, the operative questions for planning a seminar might include:

- What are the disciplinary issues associated with the seminar topic?
- Do these issues suggest a framework for studying the topic?
- Which issues are appropriate for investigation by the students I will have?
- How will I provide the background and context for students to understand the issues?
- How can I relate these issues to the students' lives and academic interests?
- What excited me or stimulated my interest in this topic when I was
a student, and how can I use my experience to motivate my students?

• How can I present the readings in such a way that students will think critically about the topic?

• What classroom activities can I use to stimulate critical thinking?

• What are the basic research tools in the discipline that students need to know

• What classroom exercises can I use to help students learn about (or use) these tools?

• From my own experience, what insights about research can I contribute to the class?

Answering these questions will help us write more specific course outcomes so students will understand the purpose of the seminar and what they can expect to get out of it. Examples of outcomes (from different seminar syllabi) include: "develop and test a hypothesis about...," "devise an experiment to test...," "develop a theory about...," "construct a treatment plan that addresses...," "design an intervention to solve...," "develop a critically annotated bibliography about..." The syllabus should also explicitly address most of the planning questions above in order to show the cognitive structure of the seminar and how the exercises and assignments will help students achieve the course outcomes.

Research has shown that this approach to course planning and syllabus construction yields positive results in undergraduate courses, but there is also empirical evidence that graduate students value it as well. In one of the few available studies on graduate instruction (Lowe & Brock, 1994), the authors found that psychology graduate students felt that effective courses are those having clearly defined objectives, relevant readings/textbooks, and clearly defined assignments and course requirements. They also felt that the most effective instructors provide useful feedback to students and clearly define their methods of evaluating student work. The evidence suggests that all students will have a more positive attitude
toward the seminar if the syllabus addresses these expectations.

**Leading the Seminar** Improving the way the seminar is conducted is just as important as improving the design. A distinction that seems to have been lost over the years is that lecture courses were taught, whereas seminars were led. A seminar is supposed to be less authoritarian and more collaborative than other courses. Good seminar leadership consists of (1) providing sufficient direction to students so they can fruitfully explore the subject matter on their own and (2) fostering a classroom climate that encourages cooperation, collaboration, and the free exchange of ideas.

Cooperative learning models seem well-suited to this idea of seminar leadership. Cooperative techniques have been used successfully in undergraduate classes for years, and teachers who adapt these strategies for their graduate seminars are finding that their students also respond enthusiastically. In a study by H. W. Hughes and A. J. Townley (1994), the authors described how they adapted standard cooperative learning approaches such as "Jigsaw," "Pairs and Squares," and "2 x 4 Debate" for their graduate courses. Students felt that these techniques enhanced their skills in decision-making, human relations, communications, and academics and even improved their subject-matter knowledge.

Some teachers also allow students a greater voice in deciding on the focus of the seminar. To provide context, in the first seminar meeting the teacher describes the work being done in the field, outlines the more important questions and issues, and relates these questions to the discipline as a whole. Students read selected pieces to fill in the background and, in a class discussion, the teacher and students together select the specific issues the seminar will address. This approach allows students to choose areas that interest them most, but within parameters provided by the instructor.

Joint academic authorship is common in many academic fields, and assigning collaborative research papers can teach valuable lessons about the benefits of scholarly cooperation as well as the difficulties involved. Pairs of students can research and write full-scale seminar papers or a series of shorter papers. For this strategy to work, the teacher must explain the purpose of the exercise and carefully
specify the ground rules for working together, describing how to divide responsibilities for research and writing, share knowledge, and work efficiently as a team. Evaluation of the product of this collaboration should also include a mutual assessment of each student's contributions to the work.

The traditional seminar paper can sometimes be replaced by a series of research/writing exercises that replicate portions of a full-scale research project. For example, an early assignment might be to compile a list of researchers (perhaps five) who specialize in a particular topic or research question, read an article by each of them, and write a short paper that analyzes similarities and differences in their approach to the problem. Subsequent assignments might require compiling annotated bibliographies, evaluating various research tools and techniques, developing research hypothesis, or writing a research proposal. This approach is particularly useful in undergraduate seminars.

**Summary** In a well-conducted seminar, students and teacher work together as a community of scholars engaged in a common academic endeavor. Students should experience the same intellectual excitement and joy of discovery that faculty members enjoy in pursuing their own scholarly interests. To achieve this goal, we must re-think our standard approaches to seminar teaching and adopt techniques that foster collaboration, cooperation, and critical thinking.

**References**


Challenges in Using Technology for the Improvement of Undergraduate Education

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Opportunities provided by new technologies such as the Internet and World-Wide Web, CD-ROM data bases, multimedia presentations, and other instructional uses of computers require considerable reflection and debate as to whether, and under which conditions, they will enhance the quality of learning and teaching. This essay begins to address this issue, but it does not include some topics, such as cost-related issues and substitutions of technology for faculty, treated in a larger paper (cited at the end).

How will technology improve undergraduate education? The claims for using technology to enhance education are considerable. For example, Niemi and Gooler (1987) note the following benefits of information technologies for learning outside the classroom: increased access to learning opportunities, access to more and better information resources, availability of alternative mediums to accommodate different learning strategies, increased motivation to learn, and, potential for both individualized and cooperative learning. In a similar vein, Massy and Zemsky (1995) contrast the potential benefits of information technology-based (IT-based) teaching and learning with the "traditional handicraft mode of education." In their view, IT-based teaching and learning has distinct advantages:
• Provides access to enormous quantities of information available through the Internet and on-line databases;

• Eases the limits of time and space for educational activities;

• Brings the best lecturers to students via multimedia so that "those of the best will drive out those of the merely good" (p. 3);

• Enables self-paced learning, sensitivity to different learning styles, and continuous assessment of progress;

• Makes the teaching and learning enterprise more outcome-oriented, which enhances the ability of institutions to stimulate experimentation and innovation;

• Increases learning productivity, especially in areas of "codified knowledge and algorithmic skills" (p. 4); and,

• Empowers students to have greater control over the learning process and benefits associated with active learning and personal responsibility.

In examining claims such as these, it is important that we not confuse access to information with either education or the ability to use information wisely, and we must consider three hidden assumptions.

**Hidden assumptions in claims for the learning benefits of technology** One assumption is that information and knowledge are synonymous, that is, if one has access to and acquires information, one possesses knowledge. In the broad view, information encompasses data, facts, opinions, hypotheses, beliefs, concepts, problems, procedures, and ideas. In order for information to become knowledge for students, it must be transformed and become meaningful through human interaction. In this sense, knowledge is not something external, to be imported directly; rather, knowledge is constructed as meaning and in relationship to an individual’s understandings and experiences. A second assumption hidden in many arguments for using information technologies is that providing information is equal to providing education. Even if information and knowledge are treated synonymously, which they should not be, is it
reasonable to limit one's view of education as providing information? In Bloom's Taxonomy, for example, recall objectives are most directly related to providing information. What about other objectives that require students to apply, analyze, synthesize, or evaluate a concept, principle, practice, or method? Moreover, how does providing information accommodate learning objectives that focus on intellectual skills or ethical values? Student development would be short-changed if learning objectives were limited to recall and comprehension within the view of "education as providing information."

A third hidden assumption is that more information results in more learning. New information technologies, accompanied by multimedia capabilities, theoretically bring "a world of knowledge" to the student. Information, as content or subject matter, is essential for learning. However, for many learners, especially novices in undergraduate education, more information has the opposite learning effect: paralysis by overload. Quantity of information is less important than appropriate content for given objectives, students, and their learning processes. More information can result in less learning.

The assumption that more information results in more learning often is accompanied by the expectation that students interact in some meaningful way with rich information to produce new learning. However, interaction (or active engagement) by itself is not sufficient for student learning; purpose and quality of effort also are necessary. These three assumptions often are used without a sufficiently complex theory, explanation, or set of practices whereby technology-based information is a resource in learning processes that develop particular knowledge, skills, and values. Ericksen (1985) stated the case in this way:

*The stimulus source of information is not a critical element in comparison to the meaning students give to a presentation, the feelings aroused, and how knowledge is used to satisfy curiosity and solve problems. The effective use of various options for presenting information puts pressure on the teacher to probe the meaning and implications of a unit of knowledge, to be a mentor in learning and in the forming of value judgments . . . . *(p. 39)* Both substantive knowledge and intellectual skills are required to search, locate, make*
sense of, and use information for productive (and intrinsically valuable) learning and teaching.

Is the effective use of technology dependent on a paradigm shift? Beyond broad policy concerns, prospects for incorporating technology into undergraduate education are influenced by the way faculty and students think about teaching, learning, and the role of technology. Some have questioned whether the fuller uses of new information technologies can be realized without a paradigm change toward learner-centered, interactive, outcomes-oriented instruction. Such a shift requires new role definitions for both faculty (teachers) and students (learners).

A related but different concern focuses on expectations for students. Do we expect students who use new information technologies to pursue independent and self-directed learning? If so, which "learning to learn" capabilities do we assume students possess? Or, do we design instructional programs that help students use technology to develop their learning knowledge, strategies, skills, and motivations?

Some additional problems and limitations in using technology
Verduin and Clark (1991) also suggest caution in assuming that benefits such as those noted above will be fully realized: It is easy to wax rhapsodic about the future of educational media, predicting that there will be a workstation or hypermedia system in every den and that a plethora of telecommunications carrier systems will make possible virtually instantaneous audio, video, and computer communication around the world. The problem with such a rosy scenario is that only a small portion of the world's population will be able to afford such services. (P. 207)

They would seem to agree. Consider the following technology issues, problems, and limitations they address for out-of-classroom learning: access and equity, quality of materials and programs, developmental costs, standardization, obsolescence, lack of human contact and interaction, and, continuous need for training. As Niemi and Gooler (1987, p. 107) conclude, "empowering people to understand and use information resources and technology is one of the major challenges confronting instructional designers and distance educators."
Conditions for the successful use of new information technologies

Experiences of the California State University System (e.g., Baker, 1994) and other institutions strongly suggest attention to conditions for successful technological applications. The following should be carefully considered:

- Workshops, seminars, demonstrations, and travel resources that provide faculty with opportunities to examine and exchange viewpoints about the roles of technology.

- Time and support for faculty to adapt existing instruction and develop new instruction suitable for technology-based instruction.

- Faculty development and hands-on experiences in becoming proficient in the technical aspects of using technology and distance communications.

- Adequate recognition and reward systems for teaching with technology and in distance education programs.

- Infrastructures and technical support in place and working well.

- Serious study of student markets, programs, and courses that are best suited for distance education.

- Developing an institution's distance education capabilities and the availability of high-quality materials.

Making sense of technology: A conclusion and an introduction

Recent literature on technology for education often uses numerous broad categorical terms somewhat indiscriminately and interchangeably. Some of these terms include educational media, communication technology, information technology, and educational or instructional technology. Consider three different uses of the term "technology":

(a) tools, including hardware, software, and systems or networks that are used in teaching and learning, but which are merely
instruments or vehicles void of substance;
(b) know-how, including methods and procedures that are used in teaching and learning processes; and/or
(c) "intelligent" tools, with knowledge components that provide interactive (and, sometimes, adaptive) instruction without external intervention.

Whether technology is treated as tools, processes, or both (which is the perspective taken here), other essential elements in a teaching-learning system must be accounted for. These missing elements and the questions they address include: students and teachers (who?); goals and objectives (why?); subject matter or content (what?); time (when and how long?); settings (where?); and outcomes (with which results?). A technology of instructional design, based on knowledge of teaching and learning within particular contexts, is often overlooked when notions of technology focus on tools and/or methods for instruction. This larger framework is necessary for assessing whether, and under which conditions, technology improves undergraduate education. What seems critical here is the need to adapt technology to learners, rather than to adapt learners to technology (Gooler, 1987). This might be accomplished through different mixes and matches of technology based on individual circumstances. As Cross (1976) argued, we must move beyond access concerns ("education for all") to concerns for the quality of education individual students experience ("education for each"). With a major emphasis on technology, do we have the knowledge, experience, resources, will, and wisdom to accomplish this goal?

References


To obtain an electronic version of the paper, "Using Technology and Distance Instruction to Improve Postsecondary Education," the address is: [http://www.uni.edu/teachctr/technol2.htm](http://www.uni.edu/teachctr/technol2.htm) 21, 82-85.
Cracks in the Ivory Tower: Conflict Management in the Classroom — and Beyond
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Conflict in academia. Does this thought bring to mind knives thrown across the room, graffiti emblazoned on the walls, professors reeling from a left punch? Obviously, this is not the kind of conflict that most in academia face in the classroom -- and beyond. Rather, the conflict with which we deal is more subtle -- and therefore more difficult to identify, diagnose, and manage.

There will always be conflict in academia. The very nature of the student-professor relationship sets up a situation of conflict because of the power imbalance. But what can we do about it? How can we identify, diagnose, and manage the conflict?

A Model for Conflict Management The model explained here is one that will work for any conflict whether between faculty and student, faculty and faculty, faculty and administrator, or even faculty and partner. This model has three parts: 1) identification of the conflict, 2) identification of solutions, and 3) implementation of solutions. All three steps are necessary in order to manage the conflict well.

Identification of the conflict is a six-step phase, all of which are necessary to understand the conflict.

1. Who is involved? It is important to identify the parties involved as
well as all who are not. The relationship of those in conflict is important, both to understanding the conflict and developing solutions. A conflict between a faculty member and a student is very different from that of two colleagues because of the differing power relationship. It is also important to determine the people who are peripheral to the conflict but likely to be affected by it.

2. What is the conflict? At this phase of identification, you need to determine objective data as well as emotions and feelings. Because conflict is an emotional fact of life, to ignore the feelings is to have only a part of the reality.

3. When did it happen? The beginning of conflict is often difficult to pinpoint. Try to identify its genesis, and also determine whether it is an ongoing or cyclical conflict. Perhaps the conflict occurs whenever a specific assignment is given, or maybe it occurs every year around the time when the faculty decide the schedule for the following year.

4. Where did it happen? It is important to know not only where the conflict occurred physically (in the classroom, in the office), but also where within the organizational structure. The management possibilities may be different if it was between peers or between a staff member and a senior administrator.

5. Resolution attempts? One must learn whether resolution has already been attempted and, if so, the outcomes.

6. Consequences of the conflict? Think ahead about what will happen if the conflict is not resolved and what will happen if it is? Sometimes avoidance or accommodation are appropriate management strategies. Perhaps others in the department can manage the conflict without your presence. There are conflicts of such tribal importance to the college or department that it makes more sense to let it go. And sometimes the relationship of the people in conflict is more important then pursuing the conflict.

**Identification of solutions** begins after information about the nature of the conflict has been gathered. Those directly involved must work together (sometimes with a neutral third party). Again, this phase must not be shortened. Often marvelous options for management are
ignored out of the intense drive for conclusion. Setting the stage and getting parties to communicate and work together are necessary parts of this phase of the process. The steps are as follows.

1. **Develop a positive attitude.** No conflict will be managed by people who believe it is doomed to failure or who refuse to sit in the same room with the other parties. This may require a discussion about ways of working together in the future and about possible positive outcomes.

2. **Establish ground rules.** Conflict produces a feeling of chaos, and ground rules should include at the very least: a) structure -- frequency and place of meetings; b) communication - agreement that everyone will use "I" statements, agreement on the use of feedback and confidentiality; and c) the membership of the group, which should not change.

3. **Identify interests of the parties.** Parties must understand their own priorities and desired outcome(s). Fisher and Ury in their excellent book *Getting to Yes* have written extensively about the importance of interests versus positions. Parties need to understand what they truly want as an outcome. After an identification of those interests, the parties may discover that one wants to teach in the morning to free herself up for afternoon research and the other wants to keep his introductory course. As both identify interests, rather than stand firm in positions, the answer to the conflict often becomes obvious. Identification of interests includes an understanding of what Fisher and Ury refer to as the BATNA, the Best Alternative to the Negotiated Agreement. Sometimes it helps to explain to parties what will happen if they do not come together to manage the conflict. Often the threat of externally imposed solutions, by the department chair for example, is enough to get parties to agree to work together.

4. **Develop alternatives.** There is never only one answer to a problem, but it may be difficult to see options. Brainstorming is the best process to develop alternatives. In an environment of trust (perhaps facilitated by the neutral third party) disputants can work together to develop multiple alternatives. It is also helpful to identify ways that similar issues have been managed by others. What have other faculty done? How have other faculty and students resolved
similar issues? What has been done at other institutions? It is important that this phase be separate from the decision making based on criteria.

5. **Identify criteria.** Not all of the ideas generated during the previous stage will be appropriate for this individual conflict. It is then necessary to identify appropriate criteria and use them to determine the best solution(s). First, there are often objective criteria. The student may have to finish a final project, but perhaps the nature of that project could be negotiated. Or the faculty member still has to teach three courses per semester, but the specific courses could be changed. Some criteria are also subjective, and, as mentioned earlier, emotions are important factors in conflict management. Thus, one criterion may be that all parties feel good about the solution.

6. **Weigh solutions against criteria.** The solutions generated earlier should be weighed against the prioritized criteria and a **best** solution will result. It is important to determine whether that solution is, in fact, felt to be the **best** by all parties. Too often, after a solution has been determined, parties realize that they left out some important criteria. This will undoubtedly happen if the parties include only rational, logical criteria and ignore emotional aspects of the decision. **The implementation phase** needs to be done with as much care and time as the other two, and it consists of the following.

1. **Develop a plan of action.** Many proposed solutions fail because of a nebulous solution. A plan of action, as specific as possible, must include the following. In extreme cases, it may be appropriate to write up the plan of action and have it signed by the parties

   a. **Who** is going to be involved in the implementation of the solutions? This may involve others outside the immediate group. Who might those people be -- the department chair, the dean, the ombudsman?
   b. **What** exactly is to be done? It is important to itemize all actions that need to be taken -- both major and minor.
   c. **When** will the parties act? What is going to be done tomorrow? By what date will the complete solution be in place?
   d. **Who** is responsible for mediating any differences between the parties? The group has done a lot of work to get to this phase. What
happens if a roadblock - or a minor bump - occurs?

2. *Determine how to handle conflict in the future.* You have just successfully managed a conflict. Now what do you do if it happens again? As a part of the conflict management process, the parties should agree on a way to deal with conflict in the future. They may, for example, agree to go to the university ombudsman, to appoint a conflict management committee, or to meet monthly to discuss issues.

**Summary** There will always be conflict in academia. It occurred in the establishment of the first institutions of higher learning and will continue.

But if one knows how to identify, diagnose and manage the conflict, then it can be a developmental experience for all involved.

**References**


This model is copyright as the "Holton Model of Conflict Management."
Metaphors We Teach By: Understanding Ourselves as Teachers and Learners

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The Power of Metaphor As human communicators, we unconsciously use metaphor as a tool that helps us make sense of reality. Metaphors serve as filters for our perceptions, providing a kind of framework within which we interpret our experiences and assign meaning to them. When filters work negatively or inaccurately, they may delete or distort information or cause us to make false generalizations that confuse our perceptions. In this essay metaphor is to be understood as a global term meaning a comparison between two unlike things which serves to enhance our understanding.

Because the metaphors we live by are typically below our level of conscious awareness, we may not easily recognize the strengths or limitations of their messages. Nevertheless, they are a powerful influence upon us, not just reflecting attitudes but shaping our perspectives and our actions.

The metaphors we use determine how we interpret reality and experience. Consider, for example, metaphors for love. "My love is a flower" suggests delicacy and beauty, along with fragility and impermanence. "My love is an open book" suggests honesty, frankness, and self-disclosure or perhaps with no secrets and no mysteries. "My love is a rock" suggests stability, permanence, and strength, as well as rigidity and static growth. "My love is my life"
suggests complete commitment, dedication, and investment of self which could suggest total dependence. Our perspective on love will affect not only our attitudes about relationships but also our behavior toward those we love.

Any metaphor we use has the potential to expand or limit our range of options to lead us toward growth and development or to keep us chained to narrow, inflexible, unchanging ways of being. The challenge is to bring our operating metaphors into conscious awareness, to consider how they may be encouraging or restricting our growth, and to change those metaphors that are creating too many limitations.

**A Sampling of Teaching Metaphors** Many educational metaphors exist that describe the processes of teaching and learning. The metaphors with which we are most comfortable as teachers communicate clearly our philosophy of teaching and learning, revealing how we see ourselves in relationship to students and what we think it means to teach.

Perhaps the most basic, traditional, and common metaphor of teaching is simply to say that "teaching is telling." Many college and university faculty appear to have this as their primary operating metaphor. The teacher possesses the body of knowledge, and learning occurs when the student is told the information. At its most fundamental level, this metaphor is based on the assumption that the teacher who stands in front of the class and talks about the subject at hand is engaged in teaching and that therefore students are learning. Much large-class and lecture teaching is clearly based on this metaphor.

Many college curricula support this metaphor through their detailed objectives about what students must learn, without clearly developed strategies by which the learning will occur. Faculty express this metaphor implicitly when they state their concerns about "covering" the material, meaning that they need to tell the students about the material. They also reflect this metaphor when they define faculty development strictly in terms of gaining more knowledge about their disciplines, excluding activities which enhance teaching.
Another traditional metaphor of teaching that fits under the "teaching is telling" model is that teaching is like banking. Knowledge exists in the head of the teacher, who deposits the information into the head of the student. The student is a passive recipient of the wisdom of the teacher.

This model at least allows for the possibility that the student's knowledge may earn interest.

The metaphor that "the teacher is the master, the student the disciple" also fits in this general category. This metaphor more explicitly delineates the power-over relationship between teacher and student although when the teacher is telling or depositing knowledge, power-over is also suggested.

What are the limitations of these kinds of metaphors?

- They view the teaching-learning process as a one-way exchange in which the power, authority, and expertise of the teacher exert control over the student.

- They view students as passive, rather than active learners, and tend to overlook opportunities for students to become engaged with the material they are learning.

- They view teaching excellence as primarily dependent on discipline knowledge and tend to overlook other factors that contribute to quality teaching and learning.

- They subtly encourage faculty to be nonreflective practitioners in their teaching role.

Other metaphors express the teaching role differently. For example, if teaching is understood as gardening, a more organic view of the teaching-learning process emerges. The teacher has to nourish the soil, eliminate the weeds, and do all the other hard work that creates a nurturing learning environment; but this model recognizes students as living beings with realities of their own. The teacher makes learning and growth possible by tending the garden of new learners. Cooking is a metaphor that can view teaching from either a
traditional teacher-centered approach or from a more cooperative, group-centered one.

Some people cook with inspired creativity, some with bored monotony. Some cook from standard recipes while others create their own. Some repeat the same menus week after week while others are continually coming up with new presentations and inventions. Some cook to delight the diners, while some disappoint or displease. The cooking metaphor can be enlarged, however, to include group efforts. In the traditional view, the teacher cooking alone as a master chef would be the important focus; from a more cooperative perspective, students and teacher could be cooking and creating together.

In the metaphor of teaching as coaching, focus again is on a cooperative approach. Individual team members do the work of learning, often in a group setting, and they are expected to do the hard work of learning and achieve learning outcomes that will enable them to perform competently when they leave the classroom. They cannot be passive recipients of information. The teacher's role is to motivate, encourage, challenge, and inspire students to achieve their potential as learners. Students are actively involved; but if they fail to achieve, the teacher cannot simply assign blame to them as poor players.

Another common metaphor is of the teacher as a guide on the journey of learning. This perspective recognizes the superior knowledge and experience of the teacher, but in addition can include the mutuality of the learning process. Students and teacher are together engaged in the adventure of the journey. The teacher may have been on the path more often and may know the right direction, so from a traditional orientation, the guide would simply tell the students where to go.

A more cooperative perspective, however, would allow the guide to take advantage of the collective wisdom of the students. As fellow travelers the students would be able to share in the difficulties of travel, to point out new and inviting paths, and to help make corrections if the group should become lost.
**Conclusion** Our culture is rich with colorful and interesting metaphors of teaching. Identifying our own metaphors allows us to reflect on the way we define our role and purpose in the classroom. What are the values reflected in our metaphors, and how do we manifest those values? Do we see ourselves as the sole authority, or do we view learning as a shared process? Do we want to give up some power so that students can learn cooperatively, or do we want to retain control?

At a time when rapid increases in instructional technologies and distance learning and continuing constraints in budgetary resources are causing a reexamination of the role of higher education faculty, we may be experiencing a shift in the dominant societal metaphor for teaching. A common phrase in our current discussions about teaching and learning suggests that a paradigm shift is occurring, moving from "the sage on the stage" to the "guide on the side." Such a shift would signal an enormous change for many faculty, and we have yet to learn whether these values are actually being internalized by a majority.

Because the language of metaphor shapes our perceptions and influences our behaviors as teachers, we clearly need to have a conscious awareness of the dominant metaphors that guide us. Knowing what we believe gives us the freedom to make changes if we find that such a step is necessary. Whether we determine that our perspective is part of a more traditional view or closer to a vision for the future, understanding our own philosophy of teaching will in itself enrich and enhance our practice.
Teaching and Values: What Values Will We Take into the 21st Century?
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The Unique Role of Values in Teaching

When thinking people attempt to describe the often mysterious engines that drive human moral choices, i.e., values, the term is usually a synonym for ideals, standards, ethics, and principles. The term "values" was washed of meaning during the political "family values" campaigns of the `80s and `90s. However, it has now acquired a new respectability as we seek to reclaim our spirituality, religious or secular. Teaching is a classic example of action based on values although professionally teachers are often expected to live in a neutral world. Recent scholarship seems more willing to consider the areas of teaching and values. One topic now finding voice concerns evidence that students find academic subjects more interesting when their professors reveal something of their own convictions, if relevant to the subject under discussion (Minnich, 1994). How to do this without abusing the teacher's power to influence students and how to avoid indoctrination and proselytizing will continue to concern the profession well into the next century.

The art and craft of teaching will increasingly demand calculated risks from a well-trained professoriate. Elsewhere, I have suggested that college teaching might be improved by an occasional "ethical time out" (Fisch, 1996), voluntary self-reflection, a personal "values audit," (Kendall, in press), and/or a review of the values driving both
institutional and faculty decision-making. The busy life of a teacher leaves little time for "retreat," but it is in the best interest of institutions to encourage such re-creational activity.

Arts and humanities have traditionally been used to transmit the values cherished by generations of core-curriculum builders. Scientific study, like the arts and humanities, is a value-laden activity rather than a neutral exercise in human reason; and today we confront serious scientific ethical dilemmas. In deconstructing some of the West's most sacred texts and art forms to create a new canon or curriculum, contemporary scholar-teachers have shown how we often distort and manipulate human experience for political and artistic ends. Efforts to deconstruct and decentralize content and pedagogy will no doubt continue into the next century, forcing change and exchange of professional views. Teachers in disagreement with colleagues about the content and methodology of their own disciplines will need to learn the language of the opposition. Many have commented on the growing rancor of departmental debates about curriculum and teaching. If collegiality and civility do not show up as priorities of the professoriate, college teaching will be much less fun in the future, to state only one lost value that has induced many to "follow their bliss" by becoming college teachers. The adverse consequences for students will be incalculable.

Recent research has forced many to reconsider values such as inclusiveness and diversity. Crossing disciplinary boundaries is often the best way to consider issues of value. No longer is teaching a private activity, limited to the confines of one discipline. Teachers must also look beyond journals in their fields to find articles of relevance to values in teaching. Until graduate preparation of teachers recognizes the usefulness of values inquiry and interdisciplinary study of how human values "work," values in teaching--whether as solitary art and craft, as communal effort, or a mixture of both--will continue to be short-changed.

"Global values" At the October 1996 State of the World Forum convened by Mikhail Gorbachev in San Francisco, participants were surveyed on their perception of "global values." Among 267 participants who were asked to identify the five operative values in
their daily lives, truth, compassion, responsibility, freedom, and reverence for life were clear winners. Fairness, self-respect, preservation of nature, tolerance, and generosity were next in rank (Kidder & Loges, 1996). As a college teacher-administrator for 34 years and in my work with the Society for Values in Higher Education, I have gained some insight into how faculty might respond to such a survey. The values above would no doubt loom large. But in addition, there would be love of the discipline and responsibility to master the subject taught, concern for students and student learning, insistence on standards, quality of life, and consciousness of the impact of their own learning on others. Self-confidence would be there, too, and healthy concern for faculty roles and rewards.

One can see where trouble lies for faculty in future, as public opinion and financial exigency bring public scrutiny of institutions like tenure, formerly perceived as a value both outside and inside the profession. Technology will require greater openness to concepts like distance learning and computer-assisted instruction as well as financial resources that might otherwise be expended on things more traditionally valued by faculty. The dramatic shift in public perception about teaching has been well documented over the years by Change magazine (AAHE) and the Chronicle of Higher Education.

What values will inform teaching of the future? As we experience a transition in our values, it is appropriate to ask what factors may require some modification of values in an "adapt or die" scenario?

• **Technological changes in teacher/student communication.** Distance, access, and growing diversity of college populations will result in use of sophisticated technologies to a greater extent than now. (For a more comprehensive treatment, see Roger Sell's essay in this volume of the essay series.)

• **Shrinking financial resources for education.** Monies previously available for smaller classes, low-enrollment majors, released time for all except funded research, etc., will have to be re-routed to fund expensive technology and staffing for emerging
knowledge areas. Remedial instruction will persist despite political attempts to limit college access to English-proficient, adequately prepared high school graduates, but school improvements will be felt by colleges as school-college partnerships burgeon.

- **Loss of government subsidies for education, cuts in federal endowments and entitlements.** Philanthropic dollars are already inadequate to fill the gap between rising costs and declining federal dollars. Corporate voices will receive greater attention in setting higher education priorities because corporate funds will be a continuing source of support. Corporate entities will be forced to take into account their social responsibility to fund projects for the common good, not merely the profit motive.

- **New disciplines, more interdisciplinary and interactive than at present.** This development will require new knowledge, new skills, and educability. The human learner, though more knowledgeable, brain-aware, and digitally apt, will need human teachers.

Such a scenario is not all doom and gloom. In periods of depressed economies, as predicted for the future, and in periods of downsizing, such as now, higher education has often gained. Community colleges and undergraduate institutions have always benefited when any significant portion of the workforce has realized, by will or by force, that new skills and knowledge are required. As demands for a skilled workforce increase and as developing global needs require higher level learning, colleges and universities will be the focus of intensive development efforts by public and private interests.

In all the challenge and promise of the future, faculty awareness and active self-reflection now, with students and in the privacy of time spent alone with the discipline, should be focused on taking steps to ensure the continuance of those values they consider timeless or essential to improve quality of life in the profession. Values that motivate because of a shared humanity should not founder through indifference or failure to understand their force to make a future
world more civil and livable.

Some helps to self-reflection exist in books that have proven useful for faculty retreats and collegial discussions within departments. Two of the most quoted books in any discussion of values and teaching have been John Rawls' *A Theory of Justice* (1971) and Alan Tom's *Teaching as a Moral Craft* (1984). Among more recent publications, Stephen Carter's *Integrity* (1996) has much to say about congruence of outer actions and inner values in human experience now and in the future, much of it applicable to teaching. Those interested in institutional-wide values concerns, mission statement reviews, self-studies, might find ethicist Edward Long's *Higher Education as a Moral Enterprise* (1993) helpful. Not likely to change is the value of the teacher as agent of change. It might help to remember that the values of the future are not necessarily those being written about and debated in cyberspace. Faculty cannot afford to say "pass" when opportunities arise to model for the civic community the virtues of the professoriate. Community interaction with university concerns may be the only way to persuade a recalcitrant citizenry that food for thought cannot be purchased with food stamps and that an investment in the future of their academic disciplines, and future meldings of disciplines in higher education of the 21st century, is perhaps the best investment of all.

**References**


The Phenomenon of Large Classes and Practical Suggestions for Teaching Them
Frank Gillespie, The University of Georgia

In these days of increased costs and competition institutions of higher education are very interested in extending limited resources. Offering more large classes is one way to do so; and classes with 100, 200, 300, or even larger numbers of students, are a common phenomenon in higher education. However, "large" does not preclude faculty from providing an effective teaching and learning environment.

The large class can be analyzed, good teaching can be modeled, and practical strategies can be identified. Since 1992 The University of Georgia has provided a forum where faculty can examine teaching and learning in large classes. What follows are some practical suggestions obtained from meetings of the Large Class Interest Group.

Expect a climate of support Instead of abandoning faculty to their own devices, institutions should take an active role in supporting effective teaching in large classes so that faculty can create exemplary learning environments. This climate should provide faculty with information about effective teaching practices; an adequate environment and infrastructure; and inspiration, recognition, and rewards for encouraging and documenting teaching excellence in large classes. Professional support staff and teaching assistants should be available to assist with tasks associated with conducting
large classes. Technical assistance and expertise should be free and readily available for using technology to produce instructional materials and to facilitate communication between faculty and students. There should be opportunities for collaboration, observation, and participation in mentoring relating to effective large class instruction; and methods should be developed to document and share promising new ideas and teaching approaches.

**Be organized and efficient** Large classes require more advance preparation and structure than small classes. Lapses in the flow of the class, while collecting thoughts or locating instructional materials, can result in a loss of student attention. Before the course begins, prepare or identify a variety of instructional aids, demonstrations, and activities to support each meeting of the class. Prepare a syllabus that includes outlines for each class meeting, all project and activity descriptions, and handouts for the entire course. Place course materials on a campus computer resource from which students can access and download materials as needed. Provide structure to the content, and use the structure to organize each lesson. Inform the students of that structure. Taking roll or distributing materials during class is not recommended for large class situations. Student materials or instructions needed for a specific class should be made available prior to class or located so that students may obtain them with as little disruption as possible.

**Connect with your students** It is important to appear approachable in large classes. Build rapport with your students, and recognize the individuality of each student. Move among them when talking. Increase student access to you by getting to class early to listen to their questions, comments, or complaints. Begin by inviting students to call out something they know or recall about a topic. Display the responses as an introduction to the day's activities. Address some of the anonymity students feel in large classes. Try to learn some names, and call on those you know by name. Learn something about as many students as possible. Have your students complete information cards about themselves--career goals, hometown, special skills or interests, expectations for the course, or previous experience with course content. Ask for a few volunteers each day to help with demonstrations and activities and through this process learn some student names. Employ seating charts, take pictures of small groups
of students in your classes, or make a videotape containing a brief auto-biographical sketch of each student.

**Provide a variety of experiences** It is appropriate to vary the type of instruction in large classes to encourage discussion, interaction, and involvement. Do not attempt to lecture the entire period. Actively involve students during at least a small part of every class meeting. Form groups of three or four to discuss a problem or work on a task for a few minutes. Have a question and answer period at the beginning or end of each class. Stop lecturing every fifteen minutes, and ask students to summarize major points with their neighbors. Present a question, and have students write their responses on an index card. Call on a few students to read what they have written. Collect all cards at the end of class to obtain information about the level of understanding of the total class.

**Encourage participation** Be aware that students are often reluctant to ask or respond to questions in large classes, and it is often very difficult to hear their comments in large lecture halls. Try to be accepting of all questions and responses from students, and paraphrase or repeat every question or response. Provide hand-held microphones if acoustics are poor. Invite students to write questions or comments on index cards and give them to you at the end of class. Increase the wait time after you ask a question. Encourage students to indicate in some way when the pace of the class is too fast or too slow.

**Obtain and use feedback** Students in large classes are often reluctant to communicate difficulties they are having with a course or the teaching strategies. Employ informal assessment techniques frequently to obtain student perceptions and suggestions. Use this information as a basis for making small changes in your teaching behavior before the course is completed. Inform your students if you make a change as a result of their suggestions. Hold weekly meetings with teaching assistants, or small groups of students, to discuss student reactions to your teaching and the course. Ask individual students after each class meeting how the course is progressing. Provide a suggestion box, or have an envelope attached to your office door where students may leave comments about you or the course.
**Use new technologies** Many large class facilities are equipped with the latest in instructional technology. It can provide an effective means to organize and present video, sound, text, and graphics to large numbers of students. Professors of large classes frequently use large screen video projection, computer displays, and other visualization techniques to present information, provide examples, and illustrate concepts for students. Some use instructional videos or computer simulations, both during and outside of class, to introduce or reinforce course content. Some professors also make available a variety of self-paced instructional materials that students may use outside the classroom. The successful use of instructional technology requires careful planning and attention to the preparation of materials. Thorough training and support should be provided to all faculty with large class assignments. As the professor of a large class you should also be concerned about the amount of time and effort you can spend responding to special requests from individual students. Traditional office hours may be inadequate, and you may want to employ electronic mail or class notes files as alternative ways to communicate or maintain contact with students in your large classes.

**Accept help** The tasks associated with teaching large classes are numerous. Common tasks for which assistance is needed include the location, preparation, production, and distribution of instructional materials; preparation of class rolls, lectures, and demonstrations; coordination of discussion sessions, study groups, or lab sections; construction of tests and project assignments; monitoring and administration of exams; calculation and reporting of grades; and maintenance of class records. Although no standards exist, many departments provide some type of support for faculty members assigned to teach large classes by providing a graduate assistant for every 50 or 100 students enrolled in a class or reducing the teaching load for faculty assigned to teach large classes. It is important to take advantage of any departmental or institutional support that may be available and to encourage your department or institution to provide you with support for your large classes.

With appropriate effort the large class can indeed be an effective teaching and learning environment.
Simulating, Experiencing, and Changing Biased Teaching Behaviors

Laura L. B. Border, University of Colorado at Boulder

Research on college teaching provides startling data on the existence and effects of gender bias. Male and female professors, white and of color, inadvertently perpetuate bias toward certain students and against others. A correlative finding is even more surprising: a full 50% of professors' responses to students are bland, flat, and non-instructive (Sadker & Sadker, 1988). This essay integrates data to assist in understanding biased teaching; describes a simulation exercise created from research findings; and concludes with suggestions for enacting, monitoring, and evaluating one's own biased teaching strategies.

Research on Bias Myra and David Sadker (1988) documented the existence of inadvertent teacher bias based on gender and race in classrooms from kindergarten through graduate school. They demonstrated how teachers' habitual behaviors encouraged or discouraged student participation and learning, noting that only 50% of college students participate; half are silent spectators. They found that faculty give more praise, criticism, and feedback to males, who are eight times more likely to call out answers and demand attention. Students habitually self-segregate by sex upon entering the lecture hall; faculty unconsciously interact more with the male side of the room. It is encouraging to note that, upon analysis, faculty at American University succeeded in enhancing equitable interactions. The Sadkers' most striking finding is that the
instructor's interactions are not neutral. Teacher attention leads to participation; lack of it causes students to withdraw.

At Harvard, Catherine Krupnick documented differences in male and female students' participation through her analysis of ten years worth of videotaped classrooms (1985). In classes led by either male or female instructors, when males represent a majority, males speak more and for longer periods of time; use technical words, abstractions, and the discourse of the discipline in discussions; and are more likely to interrupt others. Only in classes led by a woman instructor with a majority of women students do women participate fully.

The Project on the Status and Education of Women has published nine reports since 1982 on the chilly classroom climate for non-minority and minority women. Their researchers note that faculty call on men by name, coach them toward more complex answers, wait longer for them to formulate an answer, credit their answers by name, and often address the class as though no women were present (Hall & Sandler, 1982, 1996). Faculty see women as silent and uninterested, but the authors suggest that women are silenced simply by professors' focus on men. It is important to examine both instructors' and students' interactions to have a complete picture of what is really happening in classrooms.

**Deconstructing Bias** Different researchers approach bias in the classroom from diverse points of entry. Yet their findings are complementary, and the need to address biased teaching is clear. Knowledge alone does not lead to change because gender bias is subtle, even invisible to the untrained eye. To become proficient in equitable teaching strategies we need guidance, materials, experience, and feedback. At the University of Colorado we have facilitated the process through a large group simulation that deconstructs bias experientially within a controlled environment (Border, 1990). As one participant explained, "[in the workshop] I was confronted with the very real presence of gender bias. I hadn't truly recognized it in myself and in others in the classroom -- even though I had read the statistics and reports of its existence." This simulation is followed by workshops and individual consultations to identify, modify, and monitor one's own interactions with students.
The workshop includes three simulations by volunteers who teach a lesson in their field according to different instructions. The remaining participants play the role of students, receiving individualized instructions. Professor 1 is instructed simply to teach a lesson in the field. Professor 2 is instructed to look at women, ask them questions, respond consciously to them, and encourage their participation, while only briefly acknowledging men's contributions. Professor 3 seats students alternately by gender and race, asks them to create name plates, alternates calling on them by name, and coaches all to more in-depth answers. After the simulated lessons are completed, the workshop facilitator asks participants to vote on which professor was least biased. Without exception they have chosen Professor 3.

Discussion follows through which participants begin to see Professor 1's inadvertent bias. Simulation 2 reverses and thus unveils habitual patterns of bias toward men. Simulation 3 demonstrates deliberately equitable teaching strategies. The workshop reveals the overwhelming impact of the instructors' interactional style. Participants realize that students respond favorably to equitable teaching strategies.

Reoccurring negative reactions to Professor 2 uncover a hidden aspect of bias toward men. As Professor 2 turns attention to the women, the men attempt to recapture it. Subsequent discussions reveal that men feel at least upset and at most aggressively violent when Professor 2 focuses on women. Women's reactions vary from embarrassment and uneasiness to giggles. Some appreciate the attention. Others feel put on the spot, expressing apprehension that the men might "do something." The men's aggression and the women's uneasiness may belie an unspoken dynamic. Do professors unconsciously perpetuate bias because they fear tipping a delicate balance that preserves men's good will? Is women's silence really fear? This unquestioned and unexamined avoidance of confrontation might explain what the Sadkers described as the typical professor's ho, hum classroom environment.

**Reconstructing an Equitable Classroom** Most of our thinking about teaching focuses on the abstract how of the classroom -- how to organize content, present material, and grade. This view ignores
the concrete how--how does the professor actually interact with students? Professors must begin to see themselves as the essential part of the equation and must attend to their own planning and response patterns in order to become an unbiased teacher. They can establish rules for or model equitable interactions, expand the lecture to include discussion or collaborative learning, or require non-biased seating arrangements. They can consciously turn toward and alternately question men and women. Equitable teaching requires vigilance and presence.

Most students appreciate a professor's decision to adopt an equitable approach though some may not. Women who are accustomed to invisibility may rebel. Men may act out. Consequently, faculty need to plan and build effective interactions from the first day of class. Because anonymity within a group breeds silence, professors need to reduce it. It is effective to engage pairs of students in one-minute discussions the first week, build to three minute discussions in trios, and then to four minutes in groups of four. Successful large group intellectual exchange occurs naturally when students are ready, confident, comfortable, and regularly called on by name.

Faculty can profit from training in certain counseling and mediation skills. For example, instructors can learn to paraphrase student responses, summarize the immediate discussion, and check for understanding or disagreement. Open-ended questions, such as "What seems most important to you?" or "Who would like to express a contradictory opinion?" encourage individual expression. Significant change requires attention not only to listening, questioning, and response strategies, but also to body language and voice tone. Nonverbal communication is a powerful conveyor of meaning. Faculty need to acknowledge students' non-verbal communication and encourage them to express diverse opinions. Likewise faculty need to be aware of their own non-verbs and explain incongruencies as they arise.

**Changing Ourselves** While the concept of bias is easy to understand, understanding how one's own teaching is biased is not; and the physical reality of change might seem overwhelming. To identify our own bias and observe our own transformation, we need concrete evidence. Working with a peer or teaching consultant, we
can score and analyze classroom interactions (both pre- and post-interventions) using the GESA materials (1984). Once problem areas are identified, the instructor can begin to introduce non-biased behaviors. Active listening, reframing, and mediation skills, once mastered, lead to change and eventually to proficiency. Practice can occur alone, in pairs, small groups, in workshops with a skilled facilitator, and/or with videotape analysis. Analysis of student responses is also necessary.

Professors who develop equitable strategies foster excellence and equity in college students' performance. With good will and effort we can provide all students with what should be their educational birthright: access to competent, caring, and qualified teachers (Darling-Hammond, 1996).

References


The American Professoriate in Transition
Ronald D. Simpson and Thomas G. Dyer, The University of Georgia

Persistent images of the professoriate appear in American popular culture, and films contribute some of the most powerful stereotypes (Umphett, 1984). Professor Charles Kingsfield, the protagonist of Paperchase, possesses an intellectual confidence approaching imperiousness. Wacky, eccentric, even idiotic, professors lurch through such cinematic productions as The Nutty Professor and The Absent-Minded Professor. Darker images abound in films like Who's Afraid of Virginia Woolf. Even Ronald Reagan added to society's store of celluloid images of the professoriate with his portrayal of a college teacher who defends the educational rights of a former stripper in She's Working Her Way Through College.

Today's Reality Real professors are at once more interesting and more mundane than their images in popular culture. From the early days of this century, they have followed vocational paths to the professoriate that would have little interest for moviegoers. In truth, it was not until the 20th century that uniform standards emerged regarding the route one took to the professoriate (Gaff & Simpson, 1994). Today, for instance, a terminal degree from an accredited university is almost always requisite. Furthermore, a universal probationary period must precede promotion and tenure and, thereby, job security. At practically all institutions of higher learning professors must document proficiency in teaching along with evidence of scholarly attainment. At our leading research institutions very high standards must be met, which include significant scholarly
publication and in some fields the ability to attract grant monies. Public service and outreach are also sometimes significant parts of the formula of advancement. Nevertheless, this rather uniform "up or out" policy in higher education has produced a much more homogeneous faculty as compared to earlier times.

To say that the professoriate is in transition today is an understatement. More than ever before (although the expectations and criticisms of professors have remained surprisingly consistent over time), the professoriate seems vulnerable to strong forces both from outside and inside the academy.

The Transition The outside forces affecting the academy have been especially powerful. The need for scientific superiority during and after World War II resulted in higher education assuming a major national role in research and development. The civil rights movement of the 1950s and 1960s, the rapid growth in size and complexity of our state universities, and the massive pressures of the technology revolution have all created pressures that ultimately have changed the nature of academic life and the roles faculty members assume today.

Internal pressures for change have been equally important. Student unrest in the 1960s and 1970s; privatization of research activities; interdisciplinarity and internationalization of the curriculum; harassment, equity and free speech issues; and the overall dramatic escalation of litigation on campuses across the country all represent the enthusiasm and restlessness that accompany change from within (DeNeef & Goodwin, 1995).

Moving Towards the Future How have these powerful external and internal forces changed the day-to-day lives of faculty members? What policies, practices and roles are different today? What contemporary trends foreshadow the future of the professoriate?

One major shift that is already visible is the attention currently being given to how we prepare professors for the future. While Ph.D. programs equip young scholars with a constellation of skills needed to conduct research in highly specialized areas, it is widely
recognized that other professorial roles gain much less attention. On many campuses throughout the country, however, graduate students are now being provided with experiences that help them better prepare for their ensuing teaching responsibilities (Gaff & Simpson, 1994). And, in what may be an enlightening trend, the job candidate with an impressively documented teaching portfolio is often the one who gets the job.

Another trend related to the manner in which we are beginning to prepare the future professoriate is the overall importance of instruction as a part of faculty responsibility. It is no secret that external funding for research is declining. This will continue into the early part of the next century. Campuses all across our nation are already re-structuring criteria for promotion, tenure, salary decisions, and other institutional rewards. Along with this movement is a conceptual broadening of what it means to be a scholar and of the importance of incorporating peer collaboration and review in our teaching to the same extent we have in our research. (Hutchings, 1996). There can be no question that the pendulum that moved so quickly toward research as the perceived dominant activity associated with institutional reward is slowly moving back to the middle of the teaching-research continuum.

In a compelling keynote address at a 1989 national conference on higher education, Derek Bok, the former president of Harvard University, challenged the academy to take a bolder stand on important national issues like health care, ethics in business, and public education. To reclaim the public trust we have lost, Bok proposed that institutions, professions, and faculty members direct more attention to real life problems facing society. In fact, this distinguished leader of American higher education went so far as to say that in many instances universities contribute to the problem more than helping to solve it. He had the high cost of health care on his mind when he stated that the role of service and outreach at prestigious institutions has often been an orphan with no place at the table of research and teaching. There is evidence that this may be changing.

The images that abound in our society often present the college professor as a fount of knowledge, pacing back and forth in front of
the chalkboard, cutting inappropriate student remarks to shreds. Throughout the 1970s and 1980s the perception on large research-oriented campuses was that research was rewarded more than teaching. The negative part of this portrayed an aloof figure, never in his or her office, traveling to far-away conferences, receiving a high salary for being on nationally important panels, and bringing lots of money to the campus. The positive part of the image included dedicated researchers who were finding cures for diseases or pioneering programs for economic growth in a third world country. The primary roles and responsibilities of faculty members in the future will be even more varied and complex. What is hoped by many, however, is that there will be equity in the way these roles are rewarded by the institution and the sponsoring public. When the day comes that a professor working with troubled children in an inner-city school gets the same attention as the professor who discovers a new macromolecule, we will know this balance has arrived.

The purpose of an institution of higher education is learning -- learning by undergraduates, graduate students, faculty, and staff. The role of the professor is changing from a performer on a stage or in a laboratory to one who creates the circumstances from which learning occurs. What is hoped is that the traditional roles of teaching, research, and service will transcend their classic boundaries and that the work of faculty members in higher education will be viewed by the public as not only essential for the survival of our society but also essential for the general enhancement of our quality of life.

References


