

# TEACHING AT CHICAGO

*A Collection of Readings  
and Practical Advice  
for Beginning Teachers*

Edited by Diane M. Enerson

# **PART I:**

## **BEGINNING TO TEACH**

## THE CLASSROOM AND THE COURSE

Those who are about to make the transition from being students to being teachers often have many questions and anxieties about the duties they are about to perform. The first reading in this section is a lecture given by Robert Ferguson, who was asked for the Chicago Teaching Program's spring 1987 workshop to provide some practical suggestions for those beginning their careers as teachers. In response to this assignment, he offers a series of commandments for beginning teachers, which he illustrates with anecdotes about the kinds of problems that can arise when teachers forget that their students do not simply absorb information passively. Rather, as he so nicely illustrates, students actively interpret what they hear and thus will, with surprising frequency, alternately puzzle and amuse you with their reconstructions of what you have said.



## The Nine and a Half Commandments of Good Teaching

*Robert A. Ferguson<sup>†</sup>*

Our topic today is the nature of teaching practice, and I address you as a teacher and not as a theorist of pedagogical methodologies. The following observations come from a reasonable wealth of practical experience and from the comments of a few colleagues who have been kind enough to share their own thoughts in the two weeks that I have had to ruminate on the subject.

My assumptions in addressing you are twofold: first, that you are essentially new or beginning teachers; and second, that the subject of greatest mutual concern is the discussion class. If you are personally more worried about formal lecture techniques, some of my comments should still be useful—especially if you pay some attention to the plan of what you are about to hear. In any case, the whole purpose of the lecture is to reach toward effective discussion. Education is always a matter of exchange.

Let me begin with an example from my first important teaching experience as an instructor in an expository writing class with twenty freshmen. At the time, I was a graduate student—one of perhaps thirty new instructors in this very large course—and we were all given a small teaching manual to help us get started. I don't remember the manual, but I have a very vivid memory of one of my colleagues, a tall ex-Marine who, accustomed to orders, followed the manual all too carefully in his first class. That class had reduced a strong, self-confident, outgoing person to a mass of trembling fears.

This is what happened. Apparently, the manual called for an instructor to enter the first class with a common object from daily life and to dare the class to define it. The exercise was supposed to lead into a spirited discussion about the vagaries of language and the need for precision in its use. Our ex-Marine was an athlete. He brought a tennis ball with him, bounced it on the desk, and, following orders, dared his class to define it. And from the back

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of the room had come, “It’s a tennis ball. Now what’s next?” The timing, the poise, and, yes, the casual hostility of the remark destroyed this new instructor’s entire class plan. Later in the day, when our conversation took place, he literally could not remember how he had survived the rest of the hour.

I give you the story for two reasons. First, it is an excellent example of every beginning teacher’s nightmare. Your class plan has collapsed, and you experience the derision of your charges in direct consequence. You have been left with nothing to say and a great deal of time in which to say it! You have lost the upper hand and fear that you can never retrieve it. Most terrible of all, your knowledge has been dreadfully inadequate to your needs. The incident literally embodies the question that you will ask a hundred times a class in your first year of teaching, Am I running out of material?

My second reason for giving you this example has to do with my innate suspicion of teaching manuals, every one of which should be taken with many grains of salt. A rigid application of rules in the volatile forum of the classroom will inevitably fail. Another person’s decent insight quickly becomes an artificial constraint when applied too mechanically. It should be clear to you then that my title, “The Nine and a Half Commandments of Good Teaching,” has its facetious side. The open-endedness of that final half has other important meanings that we will get to later, but it stands most immediately for incompleteness, lack of system, and the knowledge that you must make your own rules based upon your own experience instead of relying upon mine. On the other hand, I have seen—and lived—your problem, so bear with me. Here is the first commandment.

1. *Make the classroom your own.*—In part this means the Shakespearean homily, “To thine ownself be true.” If you try to present yourself as something that you are not, even your dullest student will eventually see through the artifice and decide that you are a phony. Of course, knowing oneself is a difficult business, but you can learn a great deal while teaching if you give yourself the chance. Think rather deliberately about your own character. Know your strengths and weaknesses. Work on your weaknesses, but play to your strengths. If, for example, you are a straightforward, earnest individual, don’t try to be overly witty in the classroom. At the same time, please don’t forget humor; it is one of your most creative teaching devices.

Not the least part of being true to yourself lies in admitting ignorance. When a student asks you a question, and you do not know the answer—it will happen occasionally—there is only one correct answer: “I don’t know.” These are hard words to get out for a beginning teacher, but don’t underestimate the pedagogical usefulness of your own ignorance. Let me suggest just two strategies among many: (1) outline the way in which one might think about constructing an answer to the question, or (2) make a mutual assignment (for yourself and the student who has asked the question) out of finding the correct answer for the next class.

Of course, making the classroom one’s own means much more than I have just suggested. It does not mean imposing your own personality on your students. The logical extreme of such obnoxiousness can be seen in Ionesco’s play, *The Lesson*, where the teacher ends up killing his student because she fails to conform to his understanding of her. I do mean, however, that you have to guide and, at times, control your class through the nature of your own personality. There are a hundred different ways to do this, and experimentation is the key. Making the classroom your own means creating an atmosphere in which everyone, including yourself, is comfortably effective—an atmosphere in which everyone is engaged

and engaging. This goal is more easily stated than accomplished, but you never want to lose sight of the ideal.

2. *Effort!*—The second commandment can be given in one word: effort, yours and theirs. If you are industrious, your students will respect you. It is almost as simple as that, though I refer you back to rule one above as a sometime qualification. So be industrious. This characteristic is rarely a problem with beginning teachers. I raise it now because the halls of academia are filled with lazy teachers and even lazier students. Mark Twain is quite correct when he says that “the natural inclination of the human being is toward rest.” There is, I believe, no substitute for continuous effort, even if you know your material well. Teaching is work. Don’t ever forget that. You are the source of energy in your classroom. Now this may seem like an obvious comment, but the point is more complicated than most people realize.

Your effort in preparation must be matched by a similar effort in preparation from the other side of the desk. It is your responsibility, in other words, to insure that your students prepare. They will sit back and expect you to entertain them if you allow them to. But if you let this happen, there will be long stretches of boredom for all concerned, and this will be true even if you are an accomplished performer because that is all you will be, a performer. Your mission is to make your students think. That does not happen if they are simply relaxing. There should be no freeloaders in your classroom. Students should be in class, they should be prepared, and they should be expected to participate on a regular basis.

I sometimes think that the single greatest characteristic that we have lost sight of in contemporary education is the value of the spoken word in intellectual exchange. One of the reasons why some of you will have difficulty as beginning teachers lies in the unfortunate fact that you have never been expected to hold forth in a formal way in a classroom. My rule of thumb in presenting this need to my students is as follows: students should speak often enough in class that the act does not interrupt their own flow of thought. Thus, if a relatively passive student spends five minutes thinking about the form of a comment and then ten more worrying about what has been said, that student has just missed one-third of your class. Stress the formal skill of public address; it is one of the vital skills a college student is supposed to master. To accomplish this goal in a balanced way, I call on students in class. If you adopt this practice in a regular and fair-minded way, your students will accept it as part of the natural process of instruction and will not see it as a problem.

3. *Remember the formal process of instruction.*—The third rule of good teaching is almost as obvious as the first two: remember the formal process of instruction. The artificiality of the classroom in the formal process of instruction leads you to do things that you would not do in ordinary discourse. Prepare for this formality. It includes, among other things, the careful, even labored attempt to achieve precision in the formulation of questions. It also involves an unusual amount of repetition of your points and of your students’ points. (It is always helpful here to remember the old adage of the BBC: tell them what you are going to say, say it, and then tell them what you have said.) These qualities would be tedious in regular social exchange, but they are vital in the classroom. This formality extends, of course, to your class agenda. Know what you mean to accomplish in every class. Your students should know what you are doing and why you are doing it. They will be especially interested in the details. They should know what is expected of them and when—from day one in your class. They should know how you grade and what the grade means to you.

The elements just listed are ones that beginning teachers usually remember (with the possible exception of repetition). If anything, a new teacher will overemphasize the formality of instruction at the expense of substance—sticking too closely to an agenda, for example, at the expense of a more interesting point in class. But there is one element of formality that new teachers often fail to comprehend. I refer to the hierarchical nature of the relation between teacher and student. That relation is unavoidably hierarchical with all of the implications that this implies. Beginning teachers are often still students themselves in another context, and the dimensions of hierarchy often make them uncomfortable. Learn to work within it. Because you have an institutional advantage—one that will at times fascinate your charges—you also have a hundred ways for taking personal advantage of your students. All are questionable, and at least a score of them are completely unethical. This is not a lecture on teaching ethics, but you should never forget that to take advantage of a student for your own physical or intellectual pleasure is to be a traitor to your profession. Hierarchy as such is neither a positive nor a negative ingredient, but I guarantee you that it will operate in a negative fashion if you have not thought of its implications. I remind you of Cicero's famous injunction: "The authority of those who teach is often an obstacle to those who want to learn."

4. *Be aware of your students.*—My fourth rule, be aware of your students, sounds simple enough. The issue, however, has many dimensions. We can start with the literal and work up. You cannot hope for a substantive exchange with your students if you do not know their names. This amounts to a near law of human nature: your knowledge of the name is a primal signification of your interest; failure to know is just the opposite. I actually take roll before every class. I do it not just to learn the names in a large class but to inform everyone of that name. It is also an act of preparation. When you call roll, you can actually see your students sit up a little more carefully as they get ready for the public participation that true membership entails.

A second level of awareness of your students has to do with the corporate identity of your class. Here I refer to their own interaction and apparent sense of place, to their likes and dislikes within the group. A hatred between students in a class—this will happen—can be a peculiarly corrosive phenomenon for the whole group. You have to diffuse these situations as they arise. What you hope for as a teacher is a certain organic wholeness, a sense of enterprise within the class as a collectivity. You work on this by bringing everyone into the business of each class. Remember, no freeloaders. You do it by controlling the monopolists and by drawing out the silent ones. You do it by making sure that the self-worth in a student's comment builds within the immediate intellectual challenge that the group is facing. My own gauge for success in thinking about the corporate identity of the class takes the form of an aspiration. I hope that if I were suddenly called from the room my class would continue the discussion at hand without a break.

A third and related element of awareness might be called the musketeer syndrome: all for one and one for all. You face a dozen quick decisions in every class as to whether you favor an individual student or the group. Most of the time, the individual and the group work in tandem. Most of the time, you will give the group priority if there is an implied conflict. Even so, you owe every individual student time in your class, and there will be moments when you will want to sacrifice the group for that individual. Let me offer a quick example from recent experience. This year I was teaching *The Awakening* by Kate Chopin. The novel

is about a young, beautiful, and socially prominent woman who turns her back on place and preference and who, as an increasing outsider, eventually commits suicide. The book, naturally, is more complicated, but this quick summary is all you need to know to appreciate the dilemma of my student, a Korean American, who was striving very, very hard to fit within her adopted culture. She was supremely threatened by *The Awakening*. She saw that Chopin's character was throwing away everything that she was working for, and she needed to talk about it. Why, she wanted to know, should this perfectly adapted character fail to participate in society and then take her own life? It made no sense to her. My student, you will gather, was operating on an entirely different level than her peers in the class. Nevertheless, I gave her five minutes of our class to explain her point of view. She needed every one of them. For that time in that situation, the others had to wait.

There is another and perhaps more controversial aspect of one's awareness of students. Simply put, I teach most of the time to my best students. There is, in fact, little choice in the matter if you want to hold your class. One of the talents that you need to develop in the classroom is the ability to watch and gauge your students even as you are thinking or talking with them. Your better students are your weather vanes. If they do not understand what you are saying, then no one does. If they are manifestly bored, it is time to move on. You compensate by being available to all of your students outside of class. Office hours, you know, don't sound like much. You can find a way to spend an hour and a half in your office before going home. The easiest thing in the world is to turn a student away from your door. But because you are moving quickly in a class—particularly here at the University of Chicago—you must be ready to spend a lot of time outside of that class with your slower students. You have to give your people the time that they need, and you are not going to do it in an hour and a half a week.

There is one last level of awareness of your students that is worth stressing to new teachers. You want to think carefully, even clinically about your students' actual situations as they present them to you. Who seems to be in trouble? Who is pressing? Who is nervous? Who is riding for a fall? Whether you consider a display of intellectual arrogance to be merely that or a mask for painful insecurities will determine a great deal about how you respond to it. You are, in short, a counselor as well as a teacher, and you can help your students more than you might think by understanding the direction behind their performances.

A concrete example might help here. In that first expository writing class that I alluded to earlier, I managed to bring an alienated female student from the periphery into the center of intellectual activity of the class. Her work improved mightily during the semester, and I was proud of our mutual success right up until the moment when she broke into tears in public over the discovery that her instructor was a married man. I failed that student in the sense that I was the cause of unnecessary embarrassment and pain to her. I failed to see what was happening. I was so absorbed in my success that I did not think about the additional dimension and guard against it. Remember, the goal is not just to get your students' attention or to win their applause or even to teach them. The goal is to contribute to their ideal growth and development. You should realize that you are dealing with a population that is going through a very difficult maturation period. Make sure that you contribute to that growth instead of hindering it.

5. *An idea is not an idea until you hear it from your students.*—My fifth commandment is a little different, and I hope that we are getting into less familiar territory as we move

along. It is this: an idea is not an idea until you hear it from your students. I believe this one more with each passing day. You can be brilliant on the subject of realism in American fiction or on Weber's theory of charisma in a sociology class, but, if your students do not come up with an understanding of realism or charisma, you have been plowing in the sea. Several years ago, I listened to a colleague deliver an excellent lecture on eighteenth-century prose to a class of juniors and seniors. This professor was a former actor, a man with a fine voice and sense of audience, and he had never been more brilliant than on that day. But the young woman on my left, an industrious note taker for the first few moments, seemed at first confused and then disinterested. Her mind wandered, and then, forty minutes into the class, she wrote at the top of her page, "Who is Dr. Johnson, anyway?" I hope the lesson is clear. Who is Dr. Johnson, anyway? The goal of the class, no matter what the class, is to get your students to use the ideas that you have suggested to them. They must understand first. Then perhaps they might go beyond even your own understanding of those ideas. When the latter happens, when you see something for the first time because a student tells you about it, you have received perhaps the greatest reward that the classroom has to offer.

There are many ways to test your students, but the best way, certainly the most immediate, is to listen to them. Listening is an art. As a teacher, you have to be listening and thinking at the same time. This procedure will require all of your concentration. I can summarize its importance through a subordinate premise: it is extremely hard to figure out what your class knows. Indeed, I'll add a subsidiary to the subordinate premise: it gets harder to figure out what your class knows as you get older. One of the incipient signs of old fogyness in the teaching profession is that frequent complaint that students know less than they once did. In all likelihood, it is not a matter of knowing less but of knowing something different from what you expect them to know. Get beyond your feelings of depression about your students' presumed ignorance as fast as you can. Find out what they do know and learn to work with it. This is the foundation on which you build.

As a young, beginning teacher, your sense of what your students know is the one area where you have a tremendous advantage. You have a shared experiential context with students who are only somewhat younger than yourselves in music, history, film, style, and general culture. Use that experience. As an older teacher, you must learn to compensate. The seminal event of my student days was the assassination of John F. Kennedy. For the student of today, that event might as well be the assassination of Abraham Lincoln. The longer you teach, the harder you have to work at reaching your students across the history that increasingly separates where it once united.

Let me explain what I mean from an incident in class just this week. I have a student, a good one, who is writing on T. S. Eliot's *The Waste Land*. We were discussing the second section, "A Game of Chess," in which two young women in a pub discuss a third as part of a whole series of images of debased sexuality:

You ought to be ashamed, I said, to look so antique  
 (And her only thirty-one.)  
 I can't help it, she said, pulling a long face,  
 It's them pills I took, to bring it off, she said.

My student, a child of the eighties, automatically assumed that the pills in question were birth-control pills. *The Waste Land*, of course, was written in 1922, and there were no birth-

control pills in 1922. The section is about pills that force a miscarriage or an abortion. My point is that I will never teach the passage in quite the same way again because of my conversation with this student. I have learned from his ignorance. Don't underestimate that resource. The truth in teaching is always a complex thing. I remind you of Henry Thoreau's comment on the importance of dialogue. "It takes two to speak the truth," writes Thoreau, "one to speak and another to hear."

6. *Never answer your own questions.*—Rule number six follows from number five. Never answer your own questions. It took me quite awhile to learn this one, but I now try to abide by it faithfully. If you answer your own questions, your students will quickly appreciate the pattern, and they will wait for your answers instead of thinking about the problem at hand. The great difficulty with the sixth commandment is that you must be prepared to wait for answers. You must not be afraid of silence, or, as a colleague has expressed the idea, learn to make silence work for you instead of against you.

Accepting silence, enduring silence upon occasion, has been my hardest lesson as a teacher. The natural impulse is to leap right in or to move on. But I would remind you that a good question—one worth asking—is not easily answered. Moreover, you are not usually interested in the first thing that comes tripping off of the tongue. Take some comfort, when these silences arise, from Eliot's lines in "Ash Wednesday":

Where shall the word be found, where will the word  
Resound? Not here, there is not enough silence.

But if you are not poetically inspired or are still faint of heart, let me suggest a few strategies. I will sometimes reformulate the question in a more leading way. Sometimes, if I think the question is crucial, I will turn around and write it on the the board and just leave it there for the class to think about. Sometimes, I will simply say, "This is a difficult question. Take your time in thinking about it." Very occasionally, I will even say, "This is perhaps too difficult a question for us to consider at this moment," and we will move on without further comment. Invariably, you find that your students return to the question on their own at the proper time.

There are important compensations for this technique. Some of the most rewarding moments that I have experienced as a teacher have come when a group of students have come to me about a raised query. "All right," they will say, "we have thought about it, and this is what we think. Now, what do you think about it?" The goal, as always, is intelligent thought. Emerson puts the matter best for me: "One must be an inventor to read well. There is creative reading as well as creative writing. When the mind is braced by labor and invention, the page of whatever book we read becomes luminous with manifold allusion."

7. *Take a few calculated risks in your class and, now and then, even some uncalculated ones.*—Number seven must be understood with special care: take a few calculated risks in your class and, now and then, even some uncalculated ones. Education is a speculative venture. You must allow for spontaneity for your own sake and everyone else's. As a beginning teacher, you are likely to feel the greatest sense of conflict between your agenda and classroom discussion. You will have that agenda in front of you, and you will be tempted to follow it too mechanically. Obviously, there are things that you must accomplish in a given

class—that is your agenda—but don't be too slavish about it. Experienced teachers probably try to accomplish less in an agenda, but they work much harder to have that agenda emerge in a seemingly spontaneous and integral fashion. Don't be in such a hurry to tell the truth. Benjamin Franklin was right when he says that people learn best when they think that they have thought of it themselves. Taking risks is also an important mechanism for sustaining your own interest in the teaching process. That class is best where you also learn something. You want to be receptive to the good, unexpected response, the point that takes a lesson in a different though still valuable direction. Oh yes, there is one last thing about taking risks. Sometimes you are going to fail. That is in the nature of taking risks. But you will be astonished by the generosity of your students on this score. More times than not, they will emphasize their own excitement in the chance that has been taken.

8. *Welcome change.*—My eighth suggestion is a real commandment. I am prepared to have it written in stone for Charlton Heston to carry off of the mountain. I can give it in just two words: welcome change. Try different things as a teacher over time. Embrace new possibilities. You don't really need to hear this commandment right away as a new teacher, but I want to warn you that universities and colleges and high schools are filled with once vital teachers who have turned into hollow men and women by delivering the same canned classes year after year. The canned lecture is to learning what rust is to metal. It disturbs and undermines the integrity of the vital substance. No one expects an entirely new preparation every year for every class session, but the line of demarcation here is sharper than most realize. There is a world of difference between knowing your class notes and knowing your subject. If you know your class notes, you are prepared to say what you said before. If you know the substance, you are ready to engage in a fresh understanding. Your students always deserve the latter. The first is always possible, but it is also a cheat. My personal rule of thumb for insuring change is to teach at least one new course every year. Collaborations with other teachers in group courses is another insurance policy. At the very least, make sure that you have changed your texts in existing courses. It will be easier not to change the texts, but no one ever said that good teaching was going to be an easy matter.

9. *Make sure that they enjoy it.*—My ninth commandment did not come from direct experience, but it struck me so forcefully when I first heard of it that I do not conduct a single class without thinking of it. A friend of mine, as a young beginning teacher, had the experience of getting to know I. A. Richards, the father of practical criticism and a major figure in literary circles generally throughout the first half of the century. Richards was then in his late seventies, and my friend was busily engaged in working up a lecture on Oliver Goldsmith. Richards asked my friend what he was going to do and received a rather lengthy analysis of the ins and outs of the situation, the organization of the lecture, the goals of the class, et cetera, et cetera, et cetera. When my friend was finally finished, Richards responded that he had forgotten one thing. "You have forgotten the most important thing," Richards said, "make sure that they enjoy it."

So the ninth commandment is just that: make sure that they enjoy it. The greatest compliment that students can pay you is to tell you that they are sorry when the course is over. When a C student tells you that, you can have some hope that you may have been doing your job. Your students should look forward to your class. They should want to be there. Learning is an innately enjoyable process. If it is not in your classroom, then something is wrong.

Indeed, the institutionalization of learning threatens the primal truth that learning is enjoyable. Institutions—habit, schedule, convention—turn the classroom into a requirement instead of a privilege.

I am a teacher of literature, and this status gives me an inestimable advantage in trying to create interest, excitement, and pleasure in the classroom. As Samuel Johnson has put the matter, “A book should teach us to enjoy life or to endure it.” The problem, alas, is that too many teachers assume that great literature will necessarily do that all by itself. It might, in fact, but you cannot afford to trust to that hope. You will hear professors tell each other and their students that “on the college level we assume interest.” Nothing could be more benighted. Never assume interest! Part of your task, always, is to engender interest and to keep it alive. Professors have a bad habit of assuming the importance of their subject. You may assume it, but don’t forget to demonstrate it along the way. I try to keep in mind Montaigne’s aspiration that “the gain from our study is to become better and wiser by it.” The aspiration will mean different things on different levels—a different thing for a high school student than for a professor of graduate students. Still, as you prepare a class, it is not a bad idea to think about what “better and wiser” might mean in the particular context of your classroom. This may sound like a heavy burden, maybe even a pretentious one, but I find it to be an indispensable concern. Students will have their own reasons for taking your class, but, if and when you are asked for a reason—in a moment of uncertainty or perhaps of challenge—you want to have not just an answer but the best answer of which you are capable.

9 1/2. *It is what your students take outside of the classroom, not what they do within it, that counts.*—We’ve come to the final half commandment that I promised, and I hope that you will view my fraction as more than a conjurer’s trick to hold your interest. As I said at the beginning, the half indicates, in part, an open-endedness, a lack of closure, a need for you to set up your own rules in keeping with your own personality and experience. But I also call it the ninth-and-half commandment because it extends wildly outside of the frame of reference that we have been discussing: namely, your performance in the classroom. Not to make a mystery of it, the last commandment states that “it is what your students take outside of the classroom, not what they do within it, that counts.”

I mean for this knowledge to be rather humbling. Your brilliance in the classroom counts for nothing if your students don’t remember something after the experience. You want to think very hard about what they are to remember. What they *do* remember can be quite bizarre. A quick example should suffice here. Last year, in teaching *The Iliad*, I happened to mention that marvelous moment of closure near the end of Homer’s epic where Achilles’ divine mother, Thetis, comforts his grief and tries to return him to everyday life. “Go back to your women,” says Thetis, “and sleep with them as you did before.” On the examination, about two-thirds of my freshmen observed that “Achilles’ mother said it is all right for him to sleep with anyone he wishes to . . . and this makes his life happy again.” This response was my failure. There will always be some throwaway comment in one of your classes that your students will cling to and that will come back to haunt you. What they remember can be frighteningly insufficient by your standards.

What I would emphasize, however, is that to instruct and to educate are not synonyms. “To instruct” means to put in, it means to inform, it means to furnish with knowledge and information. “To educate,” from the Latin *educare, ex-ducare*, means to bring out of, or to lead

forth. Instruction, in other words, leads on to education, but they are not the same. You instruct your students, but you hope that they educate themselves through that instruction. I think that it is Pascal who says that the definition of an educated person involves one who can happily spend time alone in a room—someone, that is, who has the resources to entertain the self through thought and reflection.

It is my own personal belief that students learn more from each other than from their teachers. If you are lucky, they will listen to what you have to say, and they will, in some instances, even seek you out for confirmation or even an extension of the thought in question. But they will truly test what they know by arguing about it amongst their peers. Whether it is a math problem set, an essay assignment, or the interpretation of a book, the refining process of what they know takes place in those debates within their own generation. You can see that process at work in just about every conference room of Regenstein library on a given night.

One way of thinking about your task as a teacher is to ask yourself exactly what they should remember from a class. What can you say to keep them thinking about the subject? Or better yet, what can you say or what can you do that will keep an idea or work alive for when they will actually need it? When the Pequod finally sinks beneath the waves at the end of *Moby-Dick* on some Thursday afternoon late in the winter quarter, it has indeed sunk in vain unless your student, sometime later, argues with someone about the nature of “the predestinating head” that put it there.

Of one thing you can be certain. If your students leave your class with nothing else, they will leave it with some image of you, their teacher. The word “professor” is often a term of respect and sometimes one of derision, but the image that you want to leave your students with is the original meaning that we have lost sight of. Originally, to profess meant to make a public statement of what one believed, it meant to declare one’s faith openly, to make a religious statement of one’s convictions in a way that conveyed one’s knowledge and integrity. I would submit that this is still true if properly understood. You want to convey your passion for what you are doing but not with the object of appearing as some idealized individual or saint.

If you have demonstrated the integrity of your subject matter with all of your involvement behind it, you can hope that your student will identify with the thinking process and not with the thinker. You will have taught three things because each is useless without the other two. You will have conveyed, first, the true complexity of your subject, second, the high worthiness and pleasure of thinking about that subject, and third, the ability, despite every complexity, for actually thinking about it. You will have led your student into that proverbial empty room with enough capacity for thought to remain there—at least occasionally. You can even hope that, if another enters this room, that something interesting might be said there.



Although Ferguson’s advice is primarily addressed to those who plan to use the discussion method, his commandments do, as he notes, deal with issues that will be of concern to all beginning teachers. Moreover, his recommendation about effort is one that underlies a sizable proportion of the questions beginning teachers ask as they prepare to enter the classroom, irrespective of the teaching method they plan to employ. Accordingly, the next section amplifies the topic of prepar-

ing for class by responding in general terms to two questions commonly asked by beginning teachers. The sections dealing with lecture and discussion teaching offer additional suggestions for preparation.

### *Preparation*

*How prepared must I be before entering the classroom?*—Nearly all beginning teachers ask this question at one time or another. If you are seriously underprepared, the consequence is sheer terror, or the contempt of your students. If you are mildly underprepared, the consequence is rigidity because you must remain within the narrow area that you are prepared to address, thereby defeating the flexibility you need to negotiate between what your students know and the goals you have set for them. Conversely, you can in a sense be overprepared when you succumb to the urge to squeeze all the things you've learned into the time constraints of your course. When you try to cover too much material in too great detail, it becomes exceedingly difficult to respond to your students because you become more concerned with covering the material than with whether they have absorbed it or whether they can ever do so.

Ferguson is quite right when he notes that “teaching is work.” But, how do you know how much work is enough? You are prepared enough if you are able to pay more attention to what the class knows than to what you yourself do or do not know. If you are able to improvise and respond to the class's true state while making clear progress toward defined goals, then you are prepared enough. Many beginning teachers, however, underestimate the number of hours of preparation that are required for each hour of presentation. When experienced teachers are asked how much time is required to teach a course for the first time from scratch, estimates in the social sciences and the humanities often are as high as from ten to twenty hours for every hour spent in the classroom. Estimates in the physical sciences and mathematics tend to be considerably lower—by about half—because those hours of preparation will constitute, to a greater extent than is typically true in the humanities and social sciences, a review of previously mastered information and concepts. What is significant in all fields, however, is the number of hidden hours that must be devoted to all kinds of preparatory activities—which leads to another frequently asked question.

*What should I do when preparing for class?*—What you should do during those hours of preparation depends largely on what you hope to accomplish and, to a lesser extent, on the methods of instruction you plan to employ. To say that you must know what it is that you want to accomplish may sound simple and straightforward, but looks can be deceiving. Recently, in fact, during a CTP forum, a group of beginning teachers who would soon be assuming full responsibility for a course were asked to specify the goals they had in mind for the students they were about to teach. Answers to this seemingly straightforward question were entirely limited to statements such as “help them understand Western civilization,” “get them interested in the subject of biology,” and “teach them to write an effective argument.”

Although objectives such as these can help to get you started, they give little focus to what you or your students will actually be doing in the course. How, for example, will you know whether a student is interested, and what should you do to engender that interest? Similarly, how will you judge the effectiveness of their arguments? More importantly, if they are not effective, what will you do?

Even if the first objective you think of is similar to these examples, before completing further

preparations for the class, and certainly before entering the classroom, you will generally find it helpful to restate your objectives in more precise terms. One way of doing this is to think about what data you will use to determine whether those objectives have been reached. For example, if you want your students to write an effective argument, you should give some thought to what is involved in effective argumentation, which pieces are most critical to that effectiveness, what kind of skill or concepts are prerequisite to achieving it. It is often helpful to work backwards by first imagining what form an effective argument of the sort you are looking for would take and by then asking yourself what information is necessary along the way.

When you begin clarifying and refining your objectives, you should keep two things in mind. First, a well-considered objective clearly specifies what the student should be able to do as a result of being in your course. Second, and perhaps more importantly, it should provide unambiguous information about what data will be used to determine the degree of their success. Once you have decided on your objectives in these terms, you can then begin thinking about which kinds of classroom activities will best foster them. As the following section suggests, the methods of instruction and the kinds of additional preparation you will need to do are also determined by the goals you have set for your course.

### *The First Day of Class*

When asked to describe their greatest fear about the first day of class, over half of all beginning teachers mention first some variation on the scenario of having said all they have to say in the first ten minutes of class. This happens particularly to those who have little or no experience in public speaking. Although there are no guaranteed procedures that will prevent all manifestations of anxiety associated with these first-day jitters, a detailed plan for the first class can alleviate much of it. Accordingly, the following sections offer, first, some suggestions about the kinds of information you may want to gather ahead of time and, second, some guidelines for conducting your first session of a class.

### *Critical Information*

*The syllabus.*—The discussion in this section assumes that a full syllabus has been given to you when you were assigned your instructional responsibilities. If you were not given a syllabus, you should consult your departmental chairperson or try to talk with a faculty member who has taught the course in a previous year. Constructing an effective syllabus can be a difficult task that often requires the assistance of those more experienced in your field.

Even when you are given a syllabus, however, you may find that you want to augment it. At minimum a good syllabus should contain (1) a list of the readings for the course; (2) due dates for each of the readings and assignments; (3) a general discussion of the criteria that will be used to evaluate students' performance—that is, determine their grades—(4) a summary of the policies regarding attendance or late papers; and (5) your office hours and telephone number.

If you are in charge of the entire course, there are two additional kinds of information that you can include in a syllabus. First, you might give some thought to assigning topics for discussion to individual lectures or sets of lectures. The practice of assigning a topic is especially helpful when you superimpose the topics on the reading list; that is, you assign each topic to a set of readings.

Second, you can give the students a set of study questions to consider while completing the readings. Study questions are a very effective way of helping students focus on the more relevant parts of the text and generally will also increase the amount of time students spend preparing for class.

*The course history and demographics.*—If at all possible, you should try to talk with someone who held your position in a previous quarter. Talking with someone who has been through the experience is your best source of information for questions concerning class composition, common misconceptions, complaints, and expectations of the students who typically take the course. If you are armed with this information ahead of time, you are less likely to be disarmed by sudden and often disruptive discoveries about who your students are and what they know.

*Books.*—It is a good idea to know where the books for the course are being sold and roughly how much they cost. Check to be sure that what you assume to be true in this regard is in fact the case. You will need to know whether an order has been delayed, whether there are enough books, and whether any of these conditions will affect your ability to follow your plans. This advice also applies to books placed on reserve.

*The room.*—Before the quarter begins, check on the classroom. Is it adequate? Does it have enough seats? Can you rearrange them to suit the teaching method you will be using most often (e.g., in a circle for discussion or facing the board for lecture)? Stand in the back and look at the board—is there any glare? Do you need to pull the blinds before you use the board? The students will expect you to provide a workable situation, and being in control of the physical environment will help you feel in control of the class. Assuring yourself that the physical structure of the classroom itself will not impede your teaching can have a calming effect.

*Office hours and availability.*—Most of you will hold office hours, and it is advisable to determine two things ahead of time: (1) realistically, how many hours can you devote to office hours? and (2) how many of those hours will you be available on a walk-in basis, versus by appointment? Initially, you might try having at least a few walk-in hours per week, since many students, especially freshmen, seem to be less inhibited about stopping in for help at a designated hour than about asking for an appointment.

In addition, you will need to decide how you want to schedule those office hours. Since courses in the College run on Monday-Wednesday-Friday or Tuesday-Thursday schedules, it is better to split your office hours between those two subdivisions of the week. For example, you might have your office hours on Monday and Thursday rather than on Monday and Wednesday. By splitting your schedule in this way, you become available to the largest possible group of students and thus will probably have to make fewer individual appointments.

### *An Outline for a Typical First Class Session*

Use the first day to act as the host for the course and to set the tone. Introduce yourself and your background; then get acquainted with the class. When you introduce yourself, be sure to provide the essential statistics—your phone number, office location, office hours, and mailbox. It is often useful to write this introductory information in the upper left-hand corner of the blackboard. Some of your students will probably be late to the first day of class, and some may have stumbled into your class by mistake, so a written announcement will prevent a certain amount of embarrassment

for both groups. You would be surprised at how many students do not know their professor's name, even by mid-quarter, simply because it isn't on the syllabus and they missed, or came late to, the first day of class!

If the class is fairly small, it may also be a good idea to introduce the class to each other. One way to do this is to call roll and ask each student to provide some kind of background information. Alternatively, especially in large classes, this same information can be obtained by having students take a few minutes to fill out three-by-five cards with their names and whatever background information you think will be helpful. When you collect this information, you send a message to your students that who they are is important, a message that can go a long way toward creating a healthy classroom atmosphere.

Once these introductions are completed, you should plan to give your students at least a brief overview of the course and let them know the kind of work that will be involved and your general expectations. Many faculty find that it is most convenient to convey this information when they hand out the course syllabus. Talk about what you hope will be accomplished in each set of readings or assignments. Prepare a brief demonstration of the kinds of problems they will encounter during the course. In short, you will generally find it helpful to think about the first day as a demonstration of what the course will be about rather than trying to convey substantive course material. Finally, take a few minutes to hear from the students. You might ask them, for example, why they are taking the course, what they expect from it, what parts of its content are familiar to them, or any other question that seems appropriate. A productive first day of class sets the tone for the remainder of the quarter.

#### TEACHING METHODS

When asked about teaching methods, most people quickly identify two main types of instruction—discussion and lecture. In fact, many would argue that these are the only two methods—with all others merely being variations on these two basic themes. Debates about which method is preferable seem to be an annual event in academic circles and frequently are divided along disciplinary lines. Teachers in the physical sciences generally lean more heavily toward the lecture format; whereas, those in the humanities, and in some areas of the social sciences, lean more toward the discussion format.

The question of lecture versus discussion, however, is actually less a disciplinary issue than one of purpose. Where the primary mission is to supply information, the lecture format is generally more effective. Conversely, when the goals are oriented more toward process and changing behavior, discussion teaching is typically more effective. In the following sections, each format is discussed separately, but you should read both sections as you are preparing to teach. In these addresses, three experienced teachers offer good advice for teaching in general, whether the assigned topic is discussion teaching or lecturing, and all three raise some controversial points that you may want to consider for further discussion with your peers. All methods of instruction are useful to meet some goal. Therefore, even if you now think that you will be exclusively using the lecture method, it may be useful to have some ideas about what can be accomplished via discussion, and *visa versa*.

## LECTURING

For many beginning teachers thinking about teaching means thinking about how to execute a captivating lecture. An effective lecture often has a certain dramatic quality, and many of the elements of public performance can be exploited during a lecture. In fact, many people find it useful to draw a comparison between lecturing and acting, but you do not have to be dramatic to lecture effectively. Certainly, if you have dramatic talent and skills, you will probably find that these abilities will serve you well in the classroom. A good lecture should play off the strengths of the lecturer, and a lack of dramatic talent or experience should not dissuade you from lecturing.

As you consider each of the next two readings, it will be quite evident that rather different positions are being taken regarding the use of the standard lecture. The first reading by Henry Gleitman is one that was originally presented at CTP's spring 1989 workshop. Here, Gleitman argues persuasively for what appears to be a fairly traditional lecture format and provides some suggestions about when and why you might wish to adopt such an approach. The second reading has been excerpted from the opening presentation given by Tori Haring-Smith at CTP's winter 1988 workshop, at which she was asked to discuss practical issues related to lectures. In her critique of the lecture method, Haring-Smith very nicely exposes both the strengths and the weaknesses of the traditional lecture, while offering some practical alternatives to it.



## Lecturing: Using a Much Maligned Method of Teaching

Henry Gleitman<sup>†</sup>

It is often said that lecturing is a poor teaching method, a kind of last resort for instruction. Many lecturers, in fact, do not know how to impart information or stimulate interest effectively; consequently, their lectures are often poorly presented, badly organized, dull, and uninspiring. Even when the lectures are finely presented and well organized, and the lecturer magnificently charismatic, many educators will continue to argue that the method is still a poor second best because lecturing tends to keep students passive. After all, the argument continues, isn't the whole aim of teaching to make students think, which requires personal activity on their part? This argument often concludes with a question, Was Socrates a lecturer?

In some senses, then, this argument is as much in favor of seminars, tutorials, and similar discussion-oriented forms of teaching as it is against lectures. I happen to believe that these criticisms of the lecture method are misleading, and so I want to begin by giving some arguments in favor of the lecture—starting with Socrates. To begin with, I don't think that Socrates is the best possible argument to use against the lecture method. He didn't, for example, come to the best of all possible ends, he never published, and, most important, he really had rather few students—and very unusual ones at that. Now, if I had fewer than a dozen students, one of whom was Plato and the other was Alcibiades, I don't think I'd lecture either. Unfortunately, neither of them have seen fit thus far to enroll in my introductory psychology course.

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My point is that Socrates may not be the best model to use when considering various teaching methods because his was not the situation that we face. In this country, professors have to teach vast numbers of students. The last time I looked at the data, some fifty percent of American high school graduates enroll as freshmen in some college. Now, how can we manage to teach that massive number of people in seminars? There simply are not enough professors or teaching assistants to go around.

In addition, there are some subjects—and psychology is assuredly one of them—in which a base has to be built and introductions performed. One has to start somewhere, and, for that kind of subject, a lecture may be just fine. There will be plenty of time later on for seminars in which the deep questions and fine points are discussed. But, for heaven's sakes, I don't want to have an introductory student in psychology debate with me the anatomy of the brain or certain methods of how to measure learning in a rat. It's absurd! They simply don't know enough at this point. Later on, those things are perfectly fine to discuss but not in the introductory sequences.

When your objective is to communicate some basic facts, some basic terminology, or some initial understanding about your field the lecture can be a very useful teaching method. The trick, of course, is to do it well. Therefore, what I want to do today is to tell you how I have tried to do it. However, I should preface all the comments that follow by saying that deep down I believe teaching is an exceedingly personal business. What works for me may not work for you. Nevertheless, I'll tell you how I've done it, in my field with my assets and limitations, and hope that you can draw some useful generalizations.

*How to begin?*—During my academic career, I have tried to introduce my field, psychology, to my students. I've taught the same course in lecture form for a long time. In order to explain why I still teach this course—and still enjoy doing it after all these years—I should probably begin with a bit of biography. When I was a second-year assistant professor at Swarthmore College, whoever had taught introductory psychology previously had left or gone on leave or something. So one of my very, very honorable colleagues said, “Let Gleitman teach. He has a big voice”—what he really meant is he has a big mouth—“loves to talk, and thinks he is an actor, so maybe he'll keep the students awake.” What he didn't say was, “And, if he does it, I won't have to.”

I thought it would be perfectly easy, and then I had to give my first lecture. I was terrified. There were 150 students in the front of me. It was a sea of faces; they were looking at me. I looked at them; they looked back. I looked at them, and I didn't know how to begin. I began that first lecture with what I call the confused beginning. In my confused beginning, I began by saying, “Psychology is the study of behavior.” After making this statement, I paused, they looked at me, and the atmosphere got hostile. So I smiled boyishly—at least I thought I smiled boyishly—and I added, “And of consciousness.” The atmosphere became even more hostile.

Since that time I've decided that one of the hardest things in lecturing, at least in introducing psychology, is knowing how to begin. Overtime, I've tried a whole catalogue of beginnings. For example, I once tried what I call the no-nonsense beginning, which goes something like this: I walk in, drop my books on the table, and say, “Psychology is a science.” Then, I looked at them defiantly—no smile. Bizarrely enough, it works. Actually, if you are sure enough of yourself and in what you're saying, anything works. There is, however, one beginning that I have thought about but have never had the courage actually to use. It's my historical beginning; it basically goes like this: “In 1879, Wilhelm Wundt (the father of psy-

chology) said, ‘let there be psychology and behold there was darkness.’” Maybe, just before I retire, I’ll use it.

Over the years, I have finally settled on what I call the bureaucratic beginning, which I believe is my greatest contribution to the theory and practice of teaching the introductory course. The bureaucratic beginning goes as follows: “The name of this course is Introductory Psychology. My name is Henry Gleitman. There will be two midterms and a final.” I have settled on this. I think it is a marvelous beginning. I’ve memorized it. I can even recite the bureaucratic beginning in my sleep. It gives me something to say, so that I can get over my initial nervousness. And, believe me, that is real. Every time I begin teaching introductory psychology, the first day of class I have stage fright. All kinds of things happen to me digestively, the details of which do not belong in this lecture. I’m unhappy. Maybe they won’t like me. Worse, maybe they’ll be right. The bureaucratic beginning is like aspirin. It helps, and it works.

*What should follow?*—Once you’ve settled on a beginning, then what? You now have to ask yourself many questions. For example, I begin with such minor questions as, What is psychology about? and How do I tell my students about it? My attempts to answer these questions in a way are not unrelated to my own personal characteristics, which will always be the case, but it took me a long time to realize there was a different question I had to answer first—Who is the audience?

I’ll begin my discussion of this point, by telling you about my discovery of who the audience is not. When I first began teaching, I addressed an imaginary audience made up of my professors in graduate school or, a little later, all my distinguished colleagues. The purpose of the lectures I delivered to this imaginary audience was to show them how smart and clever I am, and how I could win any argument by confounding any opposition. I apologize to my introductory psychology students of now forty years ago; it was a dreadful thing to do. Basically, I was just giving myself an intelligence test in public, and, in that respect, I failed these students. Obviously, none of the people I was addressing—in my case, Edward Chase Toulmin, for example—was in the audience.

I also discovered later still, that the audience that you imagine should not be, or at least not exclusively be, the students who go on to take further courses. Of course, I do try to teach those students, but I’m really more interested in that group, a larger group, that does not go on. If you teach only those who go on or worse perhaps that subset that goes on to graduate school, becomes professors of psychology, and then teaches introductory psychology, you become locked into an incestuous kind of circle. I don’t think it makes any sense because there are so many more of the others. In my institution from fifty to sixty percent of the students in introductory psychology never take another course in the field. God must have loved introductory psychology students, since he made so many of them.

In virtually any subject, the majority of your students will not become majors, and an even larger majority of them will never go to graduate school. Nevertheless, I once treated the vast majority of my students as kind of academic cannon fodder, which I now regard as wrong. I believe that my real job is to teach those students who are sitting in my classroom—that is, whoever the administration in its infinite wisdom chooses to put there in front of me.

Put simply, my job is to educate them, all those students who sit in front of me—but educate them to do what? In theory at least, I should educate them in such a way so that it can be

said that their training is in the liberal arts. To accomplish this goal, I first show them—both those who go on and those who don't—that psychology is a worthy member of those disciplines that we call liberal arts. I want students to see something about psychology that makes it worthy to be taught in an intellectual university. Therefore, I try to teach it so that it becomes relevant to the artistic and intellectual achievements that are part of our human, perhaps Western, heritage.

If I can accomplish this simple but lofty goal, it will be valuable for students who do not go on. It will also be valuable for those who do go on because they will then see the field as part of a broader cultural enterprise, an enterprise that ultimately includes chemistry, English literature, and, for all I know, Gregorian chants. Eventually, some narrowing of interests will be necessary if they plan to go on in the field, but I would hope not before they have learned to see psychology in relation to other disciplines.

Thus far, what I have been stressing are things one should not do with regard to your audience is. Now, I'd like to address the question, What things should you not do with regard to your subject? I believe, when teaching an introductory course, one should not concentrate on what is backstage. In any discipline, there are lots and lots of stuff backstage. And most of the time an audience does not want to know, unless they are professionals themselves, how the revolving stage works or exactly what the actor did in order to convey a particular impression.

In my discipline what are backstage are questions of methodology. As a professional, I have to know the methodological foundations of my field to work effectively, but, in teaching introductory psychology, it pays not to overemphasize the methods. It pays not to worry about them, but only bring them up when you need them. Obviously, if you start talking about intelligence and start talking about the question, Is intelligence inherited partially? which leads to the explosive topic of whether there are racial group differences, then you have to talk about methodology. If you don't want to talk about methodology, then perhaps it is better not talk about potentially explosive topics at all.

However, it is through discussing such loaded topics that the student becomes motivated to understand what the methods are by which such questions can be examined. In other words, a controversial topic can be useful sometimes, but don't begin with such topics, and, for God's sake, don't talk about whether your field is a science! If you happen to be a physicist and a chemist, it is boring to even mention. However, there are a couple of disciplines—psychology is one of them—in which you can argue about whether it is a science. Argue with your colleagues if you must, but keep this business of psychology as the science of behavior, with which I began my first lecture, out of your lectures in introductory courses.

Another thing I've learned during my career as a teacher is that you should not emphasize what you know. That's what I did in the beginning. I set up the course so I could carefully describe such and such a theory and then proceeded to tear that theory apart. For example, in keeping with the intellectual heritage of psychology, I once began a class by explaining response psychology and behaviorism; I built it up and made them learn the ins and outs. Then we had a full week in which I showed them that this magnificent edifice that they had just worked so hard to acquire was all nonsense. I totally demoralized them in the process.

Thus far, I have paid a lot of attention to the things you should not do. But, what should you do with regard to your subject? I would be remiss if I did not talk about helping your students create links between the facts they learning. For example, I hope that by the time they

are through with my course my students will know about Pavlov, a little something about language, the eye, and the ear. I spend my real time and effort helping them to create links so that these little items, these items of facts, don't float unconnected, in some kind of educational sea, each by itself.

For example, I try to make them see that the connections between the sensory experiences, which come through the eye, perception, memory, thinking, language, all belong to one overarching set of topics that might be called knowledge or mind as knower. While the particulars of the theories in each of these areas might be different—that is, the mechanisms to explain one would not be the same as to explain others—they all still serve a single framework. Further, I want them to realize that there are some basic questions that run through every one of these subtopics—for example, Is it learned?

Moreover, not only do I try to show them about the links within the subject, but I spend a lot of time trying to show them how to create links to information outside the field. My hope in doing so is to avoid that silliness of students who assume every course should be taken as an isolated island, which is disconnected from all the other isolated islands they have taken. Obviously, I can only create links in terms of my knowledge and experience, but I try. For example, I sometimes try to relate questions in visual perception, which after all is nothing but patches on the retina, to visual problems that the Renaissance painters confronted as they desperately tried to catch the three-dimensional world on two-dimensional canvass, a problem that they eventually solved with unsurpassed success.

To give you another example—Sigmund Freud—there is so much to be said about Freud, but, at the very minimum, every student who reads Freud should recognize him as the person who attempted to mediate the clash between two forces that had been going on for 100 or so years in Europe. They should see Freud as someone who attempted to resolve the conflict between those philosophers who emphasized reason—that is, the philosophers of the Enlightenment—and those who emphasized passion—that is, Jean Jacques Rousseau and the Romantics. If students understand the history of this intellectual conflict, then the fact that Freud comes along and says maybe reason and irrationality can be converted into rationality takes on additional significance.

That's about how far it can go in my introductory psychology course. But over and over again, I try to create a little bit of a link. When I'm doing all this—and sometimes admittedly I am performing some acrobatics—I may not always be right because I am not as knowledgeable in all those other areas. But my purpose is to catch them, to get them interested in something, even if it's not psychology. Should they get turned on by Helmholtz, whose models are a logical representative—or by socioeconomic history or by philosophy or by art history—it doesn't matter. If I have somehow caught their excitement for what learning is all about, then I have been successful. If they become psychologists, all the better that they see the possibility of the links. I find I have to create links when I lecture because the links are often very fragile, and they aren't so easy to put in a textbook. Unfortunately, sometimes the conceptual umbrellas that I have tried to provide by articulating these links have holes in them. What then? This often happens when there are deficiencies in my own understanding. Realistically, there is only so much you can do. It is not possible to be Leonardo today. There is too much to know. But I am not sure it really matters.

On the other hand, there are holes and fragilities I present knowingly. For instance, when I talk about language in an introductory course, I am perfectly aware that I am lying in my teeth. All I can really hope to give these students is a caricature of language as I know and

think about it. I can't do anything else. It doesn't matter, though, because, even if the framework is somewhere false, it is better than no framework at all. In some ways, what I'm doing is presenting a scaffold or general structure into which the specific facts and the little theories will fit. If I don't present a structure such as this, the facts will go away anyway. So, even if the scaffolding has to be torn down eventually, it has served its purpose during the time they needed it to remember all these facts they would have forgotten otherwise.

Although most of what I have said thus far concerns the kinds of intellectual effort that are involved in teaching, I believe that teaching is also an emotional process. How do you get students involved? It's a nice spring day. There are many, many things to do that are more interesting than size constancy or Pavlovian extinction. Why should they sit there and become interested? Because they don't yet have the intrinsic interest—or very few have—it is absolutely crucial that you show that you are involved yourself. If you are not interested, why in God's name should they be?

In some respects teaching is a very emotional experience. It's libidinal. Just as a good actor wants to get an audience involved with the play through the character he or she portrays, good teachers want to get their students involved in the subject. A word of caution here, however. Although you are enormously tempted to allow the students to become involved with you rather than through you, doing so does not serve anyone's real interests and in some senses is too easy. The real trick is to serve as kind of a medium for the subject—what shall I call it?—to be an academic Pandarus. If I manage to get them involved not with psychology but with philosophy, with art history, with some other aspect of the life intellectual, that is fine, too.

The problem of getting students involved becomes particularly perplexing when you have to teach the same course over and over. The problem is exactly equivalent to the problem of an actor in a long-run show. You are Othello, it's the fifth act, and you are supposed to have the emotion of jealousy that leads you to throttle Desdemona. Now, how can you, the actor, want to throttle Desdemona ninety times in a row? Somehow or other you have to recapture the experience you had the first time that you felt that emotion. You learn theatrical tricks for that. You learn how to retrieve a little sliver of that emotion. You train yourself to recapture that feeling.

Another thing in teaching that is analogous to what happens in theater concerns preparation. Even after all the years I have been teaching introductory psychology, I keep on preparing lectures. My colleagues ask me, "Why?" After all, I already know the stuff; I wrote a text. In fact, sometimes I tediously rewrite the lectures and then discover they are exactly the same as last year's. Somehow while doing this—much of which is just dumb activity, like that of the baseball player who tugs at his hat religiously trying to get himself into whatever wacky mood it was that allowed him to swing properly—you begin to recapture what excited you in the first place.

*Why do I teach?*—I will now conclude by commenting on what I get out of teaching. Why do I keep on teaching the same course year in and year out? The answer is not "to keep my job"—I have tenure. I do it because I get satisfaction that is threefold. First, I gain as an intellectual being. When I am teaching people who are new to the field, I have to be sharper, in some fundamental way, as a psychologist than I have to be at other times. You can always fool your colleagues because they are not very smart about their own subject. When you talk to your colleagues, often all you're doing is throwing up clouds of obfuscation, and you get away with it in part because they are polite. After all, if they don't let me get away with it, I

won't let them get away with it. You often get away with their not examining your assumptions because they are busy. They go back to their offices and let you get away with presuppositions that you have never really examined because they don't have the time to quibble with you.

This kind of generosity about the presuppositions I make is not true of my students in introductory psychology. These students are like the little boy and the emperor's clothes. They will ask the unaskable nasty questions. They will ask, "Why should I care about college? Or about pigeons? Or about language free diagrams?" At that point you will have to ask yourself these same questions, honestly, without evasion, because you can't fool them. Obviously, you can fool them easily about the details, but never about the underlying presuppositions in a field. When they start asking rock-bottom questions about why you are really interested in the first place, you are forced to ask yourself very fundamental questions.

When I am teaching these introductory courses, I also gain as a social being. What I get from a good lecture is what an actor gets after a good performance. I get a significant emotional high, a kind of a peak experience. At its best, it is like very few experiences except those that are rather private. Unfortunately, there is a drawback because after a bad lecture I feel like hell. I become depressed. Once, incidentally, I thought I had the solution to this because I gave two introductory psychology courses back to back. Initially, I would always convince myself that, if I messed up in one, I could make up for it in the next. This fiction was great until the day when both of them were terrible. Then I felt like shooting myself, and it was simply because I believe in gun control that I didn't.

But I gain in still another simpler and human way—I gain as a moral being because, when I teach, I get a sense of day-by-day fulfillment that research does not give me. Why? In research the trouble is not whether you have good intentions or whether you are hard working or bright or even creative. You can be all these things, and it is not enough. The only issue is whether you are right. And that, unfortunately, is not up to you, but it's up to nature. This being the case, research may be fine sometimes, but on a day-to-day basis it is frustrating. But, when I teach my introductory courses, things are different. When I teach psychology to these freshmen and to these sophomores, I get an immediate feeling of fulfillment, a sense that in a small way I'm affecting human lives and that I've earned my daily bread. So you could say, teaching is my daily bread and butter; whereas, research is my cake.

To teach is to affect people, usually young people—all sorts of young people. I've been blessed with some wonderful students. The best I've had have gone into psychology, and some are now among our finest scholars in the field. But, even at the finest institutions, it is very rare that many of your students will become distinguished scholars. I've had some of the less-than-best students, too. There is one I'll never forget. I was still young and very, very energetic and I assigned term papers. Good God, 150 term papers to read! I gave him an F because the paper had beautiful prose. The prose was just great, except that I remembered it. So I called him in, and I told him he was a plagiarist. And he convinced me, believe it or not, that I was wrong, that he was not a plagiarist; he was just stupid. He thought that it was all right to copy somebody's knowledge without quotation marks or reference. So he wasn't a plagiarist. What could I do? I think I gave him a D. Well, at graduation, he came up to me and thanked me for teaching him. I felt I had done something valuable for this person.

In conclusion, I believe that the academic business is not just a profession; it's not just a

trade; it comes down to being a calling. Teaching the introductory course is just one of the ways in which that calling is practiced. Because of this, on any given day, I can say to myself, “My experiments are going bad, I just lost my research grant, my daughter twisted her ankle, and I had an argument with my wife, but I gave a great introductory psychology lecture.” So, all is well!



## Teaching by Lecture

*Tori Haring-Smith<sup>†</sup>*

Even though I spend my weekends traveling across the country telling people that lecturing is one of the least effective pedagogical strategies, I am invited to the University of Chicago to speak on lecturing. So I need to do some back handsprings here. Basically, if you have a large class, lecturing is justified to a certain extent, but it is an activity that I think needs some very careful examination. What I’d like to do is get you to think about how the way you establish the classroom defines the role of the student, the role of the teacher, and the process of learning. In other words, when you select a pedagogy, you should select it consciously, knowing what it is you are doing to yourself and to your students, rather than just selecting the pedagogy that’s easiest or most familiar. Pedagogy has content—how you teach is to a large extent what you teach.

Traditional learning, or lecturing, is probably something that most of you believe you need to practice. It’s what I did when I started to teach. It’s attractive because it is familiar. You may think that it is a fairly difficult thing to do because you have to overcome stage fright and maintain a relatively stable posture, yet it also seems relatively easy because you’ve seen it done. Watch small children playing school. What does the teacher do? The teacher lectures. It’s what you’ve been prepared to do. Your mind has been filled with knowledge which you are now ready to give back. It also seems easy because you’re totally in control. You may not think you are, but you are. The students don’t know what will happen next. You are in control of the agenda. You’re the one who says, “Today we will talk about Wordsworth.” They didn’t ask for Wordsworth. They probably had a clue about your lecture topic from the syllabus and previous lectures, but you’re the one who knows exactly what’s going to happen. You’re the one who has planned what questions to raise and not raise. You are in control of the organization of the course and the students, unless they get up and leave.

In addition, lectures are a relatively attractive form of teaching because they allow you to do everything that gets you high evaluations on standard teaching forms. I don’t know what your forms look like, but ours have a numerical rating scale asking for an evaluation of things like the teacher’s knowledge of the material. If you lecture, you know all the things that the students don’t, so you look knowledgeable and get high ratings. On our forms, stu-

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dents are also asked to rate the organization of the course. Provided that your lectures are coherent, you are also likely to be graded rather high for the organization of the course.

Finally, the construction of a lecture seems relatively easy because it, too, is a very familiar process. It's what you do every day. That is, you prepare research, you write papers, you prepare class presentations and seminars, and you work on dissertations. It means going to the library, finding out about something, thinking about it, and then writing it down. The only thing that seems different about a lecture is that you have to stand up and deliver it. In other words, you take what you've done as a graduate student, and you convert it into a teaching process. That makes it familiar. I would argue that there are better ways to prepare lectures than that.

*Avoid the term-paper lecture.*—If you have to lecture, I recommend that you design your lecture to cover material that has not been covered by the students or to structure the material that they have read in a new way. Students quickly figure out that they should either read the book or go to the lecture because they are largely redundant in most classes. In other words, students figure out either that the teacher is clearer than the book or that the book is clearer than the teacher and design a study process around that. The best sort of a lecture should consist of a conversation among the text, the teacher, and the student. For that to happen, the teacher and the text can't be conflated. A book is more useful for people finding material initially. The lecture that surrounds the material should either translate that material into a new language or provide outside material that puts the text in some sort of context. That is, the lecture ideally sets up the text, provides transitions among class discussions, and then summarizes.

Because it is spoken, a lecture's structure must be clear. If I had a blackboard, one of the things that I would do today would be to write out the four or five points that I am going to make in the hopes that then you could follow this lecture more easily. Another thing that I am trying to do in this lecture is to say constantly, "This is what I'm going to say and this is what I've said." As you go through the lecture, you need to mark exactly where you have been and announce where you are going. If you are lecturing from the moment you walk into the classroom until the moment you leave a large class, then you have to be especially clear about where you are going. Of course, the whole lecture makes sense to you. It is wholly formed in your head, but it is not wholly formed in the minds of your students, so that you need to mark and highlight your main ideas as you go through.

If you question articulate students about lectures, they'll say, "I write down everything that the teacher says because I don't know what's important, but I figure that by the end of the semester, I'll be able to go back in order to outline and underline." That's a bright student. The students who are not so articulate or who don't quite understand the lecture format will take everything down and never be able to sort the trivia from the main idea unless you are constantly repeating that main idea. If I said that Eugene O'Neill was wearing green pants when he wrote *Long Day's Journey into Night*, most students would write that down. They wouldn't know whether five minutes down the road the fact that he was wearing green pants will be important. They can't tell what's coming. You've got to tell them what's coming in order for them to know exactly what it is that they should be writing down, what they should be listening for.

You need to structure a lecture in terms of repetition and pacing of examples. When

someone is reading, they can go back and figure out what your thesis is. They can go back and check the reference. The listener can't do that in a lecture, and, as a result, you have to keep the pace going at a rate that the students can follow. You need to build in as much as possible the movement between the abstract and the concrete, the difficult concepts and the application of those difficult ideas. If you write or speak continually in the abstract, then the students are not going to have time to assimilate what it is you're saying. If you present an idea, then exemplify it, and then give another idea, and exemplify it, and then repeat the main point of your lecture, you've probably put together a lecture that someone can follow.

Another thing that you have to do is consider the way you deliver your lectures—talk to, not at, your students. If I am beginning a lecture and I look out at a blur and not into the eyes of the students because I'm thinking about what it is I'm going to say next, then I know that my tone of voice shifts. I know the placement of my voice shifts, and the students feel they're being read to, rather than talked to, even though my eyes may not be going along a piece of paper. I know that I did this when I began to teach because I was defensive. If I didn't look at the students, I couldn't see that they didn't understand. Try as much as possible to communicate and watch people's eyes. It's hard, but you have to do it. Sometimes it is very discouraging because you see people staring at the ceiling, looking at the door, and falling asleep. But that's to be expected. It's legitimate. People's minds wander. That's one reason why you repeat things.

*Address the student, not the material.*—I would urge you to think of lecturing not as an interaction between you and the material (with the student looking on) but as a direct interaction between you and the student. In my field, for example, I could sit down and prepare a survey of drama by defining the material that must be covered, saying "I'm going to begin with Ibsen, and I'm going to end with Beckett, and I want the whole thing in chronological order. Here are the major authors that I have to include." But there's another way to prepare lectures, and that is to ask yourself, "What do these students know? What do I want them to know? What have they read? What have they done?" This completely shifts the lecture format.

These two methods of preparing a lecture define the relationship between teacher and student very differently. The traditional, material-driven lecture usually assumes that the students exist as empty vessels that will be filled by the knowledge of the instructor. We walk into these lectures, making some basic assumptions about what students know, and we begin talking. In this kind of classroom, the teacher sets the agenda and defines the questions to be asked as well as the language in which they will be discussed. This format assumes that students are empty slates to be written on. But, I would argue, we really know very little about students. If we don't know what interests (both personal and academic) they have brought to the classroom, how can we speak to them? If we do not think about our students and their needs, we are performing and our students are merely spectators. In the current educational jargon, we are active, and they are passive.

Now you may think that it is easy to make assumptions about students' preparation in upper-level courses or courses with prerequisites, but, even then, we can never be sure what our students know. My favorite example of this happened in my opening lecture in a modern drama class. I talked to the students about the format of Victorian melodrama for over twenty minutes. Then I spent another forty minutes talking about the Victorian spectacle theater, which achieved exaggerated effects, like burning ships on stage. Now, I thought that I

had clearly established that melodrama as a dramatic form and spectacle theater as a style. I asked the students later if they would please write down for me something that showed the influence of melodrama in Ibsen's *A Doll's House* and tell me why it was melodramatic. As I looked at their responses, I saw that almost every one of them was saying, "This particular character's action is melodramatic because it's exaggerated." What I had forgotten after twenty years of teaching drama is that there is a common use of the term "melodrama"! The students had taken the lay notion, of melodrama as exaggeration (as in "Oh, don't be so melodramatic!") and laid it on top of my lecture. Working from this perspective, they conflated my discussion of melodrama conventions and my description of spectacle theater, and they ended up equating melodrama with exaggeration. Now, I was going to use the word melodrama for twenty-five more lectures. If I kept using a term as I meant it, and they kept hearing something entirely different, we would have been talking two different languages, and they would have learned all sorts of incorrect things about melodrama.

What I should have done was to ask myself before that lecture, "What would a student think melodrama is?" Because I hadn't asked that question, I wasted a whole lecture. In fact, I had to go back a second day and tell them that I had goofed. Basically, I had to deliver the lecture again, but this time saying, "You think melodrama means this, and that's legitimate, but I'm going to use a new definition." My students walked out of that first lecture thinking they knew exactly what I had said. Everything that they thought, every misconception, was confirmed. I walked out thinking I had done a good job. They laughed at the appropriate spots, but no real communication had taken place.

A second, and slightly different example, comes from my husband, a mathematician in computer science. When he tells students that they should work together when they write their computer programs, they think that "working together" means producing identical products. Rather than seeking knowledge from one another and then using it to create their own version of a program, they simply copy each other's programs. So my husband has to identify and correct their preconceptions before they can follow his instructions.

Don't wait until the final exam to find out that they don't have a clue to what you have been saying. My first year of teaching I taught an introduction to drama course in which I taught many plays that had phallic imagery in them. On the final I gave them a series of things to identify and tell whether or not they were significant. One student in the class wrote after every object, character, and idea, "This is phallic." When she failed the exam, she came to see me because she didn't understand why. I told her I really didn't see how this leaf that fell from the tree was phallic. She looked at me and said, "Well, you see, it was phallic to me." When I asked her what she thought phallic meant, she replied, "Well, it's something abstract and indefinable. You can't really put your finger on it." When I explained to her what it meant, she turned red to at least the top of her head. When this student heard all my lectures filtered through this notion of phallic, she thought that I was just standing up there saying, "This stuff is really difficult, isn't it?" In other words, my lectures made no sense to her at all. So, please consider what your students know and create some ways to find out what they don't know.

What are some ways to overcome your blindness to what students know? The traditional way is to quiz them. The quiz, like the lecture, is formulated in the teacher's language. If you don't agree with the teacher or think like the teacher, you're not going to do well on the quiz. And quizzes that are graded don't give the students time to admit ignorance. They will

do their best to disguise ignorance in a quiz. What you need to do is to provide students with an opportunity to give you honest feedback on what it is they understand and don't understand. For me, that means giving them an opportunity to talk to me privately and providing an opportunity for them to raise their hands and ask questions in the middle of the lecture. By talking to them, you discover that the girl in the front row who doodles incessantly understands the material beautifully because somehow doodling is necessary to her thought process.

Unfortunately, office hours and class discussions both intimidate many students. Even more productive is asking students to write a five-minute response to questions posed during the lecture. For this to work you need to tell your students that the question is not going to be a quiz, that it is not going to be graded, and that you want them to respond honestly. I let my students know that, if they didn't do the reading, I would much rather see them write, "I'm sorry I didn't read *Death of a Salesman*, but let me apply your question to *Cat on a Hot Tin Roof*," rather than try to b.s. their way through *Death of a Salesman*. I also tell them that, if they say that repeatedly, week after week, then it will affect their grade. Although I do not grade these responses, I read them and keep a record of them. Students must complete twenty-three out of twenty-five to be eligible for an A in the class, twenty-one out of twenty-five for a B, and so on. Of course, their grade is determined by papers and exams, but the responses make them eligible for a certain grade. This procedure ensures that students come to class, do the reading, and listen to my lecture. I'm enough of a ham that I want an active audience.

The sorts of questions I ask come in various categories. The application question lets me know whether what I said makes sense to them. For example, during the melodrama lecture, I might say, "I've just given you the abstract concept of melodrama. Find me an example of melodrama in the play you read today and tell me why you think it's melodramatic." If they say, "I'm really not sure, but here's what I think," it doesn't matter because I just want to know what is in their minds at that moment. Confessing ignorance is as acceptable as demonstrating mastery. You can also give your students what I like to call stretch questions, which tell you how far they can take what you've just said, and how they think, which is valuable information. For example, after delivering a lecture on a play that caused the Irish to riot violently in 1905, I will ask, "Why do you think these people rioted?" Now, some students will speculate based on their knowledge of history; some will speculate purely on human grounds, and others will speculate on aesthetic grounds. That doesn't matter. I just want to see what they will do, so I'll know what they're capable of. These are very different questions than the standard quiz question, What did I just tell you?

Sometimes I carry this technique one step farther. I ask my students to write down three questions concerning the play that they've read. Then I ask them to choose one and tell me why they think it is an important question to ask. This engages them in independent learning, and it tells me what they're interested in. It tells me whether they can define a useful question. When I'm really feeling full of piss and vinegar, I will say, "Give me your questions, and I will design the lecture around those questions." When you're lecturing on familiar material, you can do that because, believe me, the questions they ask will be relevant. You discover some very interesting things when the students, rather than the material, set the agenda.

When you are thinking about ways to make the students more active in a lecture, don't always present the knowledge of your subject as a series of solved problems. In other words, begin to open up those problems to discussion, and you will begin to get a dialogue. Mono-

logue essentially presents knowledge as problems that have been solved. Even the fact that the problem isn't solved becomes itself a solved problem. For example, if you say, "There is no answer to this question," that becomes in itself an answer. Thus, if you're communicating a set of solved problems to your students, you are also communicating to students ideas about what learning is. You are teaching them your solutions to a bunch of problems, rather than teaching students to explore problems and discover what they really are. If they're going to understand what it is you do, they need to see you ask those questions, too.

Another way to think about this issue is to think of a typical lecture as a magician pulling solutions out of a hat. This was brought home to me when I was teaching a survey on Romantic Poetry. I was lecturing on why a poem by Wordsworth was funny, and all the students were writing down, "The poem is funny." It was a solved problem. None of them had laughed when they read it. None of them were laughing at the time they wrote it down, but it was unquestionable: "The poem is funny." Now, that didn't strike me as odd at all at the time. It was a piece of knowledge I was giving them. In the middle of what I thought was a wonderful lecture, a student sitting right in front of me started to wave her hand insistently. I knew, from the first set of papers, that she was far from the brightest student in the class. She was a freshman and clearly didn't have a lot of background in literary criticism, much less poetry. I was hoping she would just give up, but she didn't. Finally, after I decided there was nothing else I could do, I called on her, and she asked me the best question a student has ever asked. She said, "If you weren't an English teacher, how would you know that poem was funny?"

With this one question, this student had cut to the heart of the problem. She was basically saying, "I don't think the way you do. I don't know whether I want to, but I wish you would at least show me how you got that rabbit out of the hat." I couldn't answer the question; it sent me home to redesign the syllabus and directed my attention toward this problem of taking the students into account. What she was saying was "Stop giving me solved problems and show me how to solve my own problems. Explain to me this strange universe that you inhabit." The students who were English majors in the classroom probably had the same question. However, they realized it was a question from outside the inner circle. She was betraying ignorance, but the question was invaluable, and I told her so. Any field has an insider's code that won't make sense to your students. As a graduate student, you learn to write and speak within the context of your field, though it might seem like total nonsense from the outside. You learn the language of the discipline. Undergraduate students rarely have that language. Therefore, you need to find out where they have come from in order to take them anywhere.

If you are responsible to the student rather than the material, you can avoid the evils of the lecture that popular culture lampoons so easily. In the recent movie *Real Genius*, for example, there is a running gag as a college lecture hall filled with eager students, who are all scribbling exactly what the teacher is writing on the board, is transformed from scene to scene. One by one, the students are replaced by tape recorders until the hero of the movie and the professor are the only two human beings in the room. The day inevitably arrives when the student walks into the classroom, and the teacher, too, has been replaced by a tape recorder that is speaking to all the other tape recorders. The teaching scenes in another recent movie, *Ferris Bueller's Day Off*, also mock the emphasis on material over students. Ferris's history teacher is always shown asking students to fill in the blank in his sentences: "And that was the Gramm-Rudman Act of 19— . . . anyone . . . anyone . . . 1987." As the students sit

in stony silence, the audience laughs through recognition. They remember the sensation of being like cattle with rings through their noses leading to a tether in the teacher's hand. If your lectures sound like either of these, then I would argue that you may be teaching material, but you are not teaching students.



### *Teaching by the Lecture Method*

Although lecturing is, as Gleitman notes, often dismissed by educators, it has nonetheless proved to be an extremely durable method of instruction. Obviously, lecturing does have its advantages. Lectures are, in fact, an efficient means of conveying a body of information, especially when there is either too much or too little printed information available. They can also be a very effective medium for conveying enthusiasm and excitement about a field, or, as Haring-Smith suggests, lecturing may simply appeal to many because it seems as familiar as a comfortable old shoe and thus is a fairly common first choice of beginning teachers.

Although there are many situations in which most of the educational agenda will be better served by the discussion format of teaching, nearly all educators find that they must prepare lectures at least occasionally. Because unplanned lectures are rarely an effective method of instruction, you may find the following information helpful at some point along the way. Most of the information that follows is a response to the more common problems and questions beginning teachers have as they begin trying to assemble and produce lectures.

*How much material should I prepare for an hour lecture?*—There are two important inherent characteristics of the lecture situation that you should keep in mind when you are preparing for class. The first of these concerns is the amount of verbal information that can be effectively squeezed into a specified amount of time. An average out-loud reading rate is about 140–160 words per minute. In other words, even if you are able to read at a steady nonstop pace for nearly an hour, the most you will be able to read is fifteen single-spaced, typewritten pages. Thus, allowing for the necessary variations in pacing, questions, and so forth that accompany a well-delivered lecture, a good rule of thumb is that the information contained in a fifty-minute lecture can be transcribed into no more than ten single-spaced, typewritten pages.

It is also important when you are preparing a lecture to remember that people have a limited ability to absorb aural information, tuning in and out of the lecture every fifteen–twenty minutes. Students cannot go back and skim through a lecture when they begin to wonder whether they have missed an important point. And they may well have! Pattern your lectures so that major items appear no more frequently than every fifteen–twenty minutes, and limit yourself to no more than four major items within an hour lecture. The rest of the time should be taken up by the examples, proofs, and anecdotes that support and reinforce the major point. You will obviously want to vary how the points are made—for example, once or twice as an abstract principle, once as a demonstration through a concrete example, and once as the summary and conclusion. Do not count on a really crucial point reaching all your students at the same time.

*Is it a good idea to read a lecture?*—There are some occasions when it is useful to read a lecture, such as at professional conferences and when you are addressing a group of colleagues. Despite appearances to the contrary, however, reading a lecture is not a panacea for the stage fright that inevitably befalls beginning teachers. Actually, reading a lecture effectively requires nearly as much skill as, or possibly more skill than, does a more spontaneous delivery. Lecturing is especially ill suited to you as a beginning teacher because, when you read a lecture, it becomes considerably more difficult to assess your students and their reactions to what you are saying. As a beginning teacher, your ability to assess and gather information on how students think, and the kinds of novel reconstructions of information they make, will be extremely important (See Ferguson and Haring-Smith, for elaborations and examples of this point). If you routinely read lectures, it will be difficult for you to acquire this crucial information. Most people actually do best by first mastering more spontaneous kinds of delivery and only later trying to master the art of reading from the podium.

When you read a lecture, you have a greater tendency to lose students simply because they cannot process the information as quickly. If you must read a lecture, be sure to allow for frequent eye contact, and vary the tone and tempo of your voice. For example, begin the lecture slowly to give students a chance to connect with what you are saying. You can pick up the pace as you move along, but you will want to slow down again as you are reaching major conclusions. Pace of presentation is an effective nonverbal way to achieve emphasis. You can also punctuate key points by using the blackboard. Above all else, remember to be natural!

*How can I be sure that I reach my students?*—Give your students an unambiguous framework for listening to the points you want to make—remember the earlier comments about how students will edit and interpret what is said. Be sure you give them enough information so that they don't edit out the most important parts of your message to them. Many successful teachers will underscore their organization by outlining their main ideas or topics on the blackboard before they begin a lecture. Then, of course, there is the age-old adage that sometimes works in written composition but more often does so in lecturing: "Tell them where you are going, go there, then tell them where you have been."

A good lecture, like a good essay, not only makes a point; it demonstrates it. Demonstration can take a far greater range of forms than is possible in writing, and which forms you use will partially depend on your goals and the content of your lecture. One fairly common form for demonstrating a point in a lecture involves audience participation. For example, you can ask a series of questions to retrieve from the students the more important details you have presented thus far, write the points on the board, and then invite the class to draw the appropriate or main point conclusions.

Vary your voice and movements to punctuate your lecture, especially your major points. Lean into your audience and lower your voice to share a private point of view on the issue; slam the podium and exclaim when you've lulled them to sleep and a crucial point has appeared; move around the room and use your hands. During the lecture, find ways to make sure that you are not losing the students. The most obvious way is to make eye contact and watch for the tell-tale signs of incomprehension. Another way to check on the students and vary the monotony is either to pose specific questions such as asking students to summarize the key ideas so far and asking for the definition of a previously studied term or to ask for students' questions. Evaluate the lecture at the end of the class by having the students write a response to questions such as, When were you the most confused during the lecture? Haring-Smith offers other ideas on how to create student feedback while lecturing. A recent report from Harvard University suggests a general classroom activ-

ity called the two-minute essay, in which students take a few minutes at the end of each class to respond to the following two questions: (1) What was the main point made today? and (2) What is the most significant unanswered question in your mind right now?

*Which is the best way to begin a lecture?*—At the beginning of the lecture, gain the students' attention and remind them of the context of the course. The introduction to a lecture should provide your students with the conceptual framework of the information that will be shared. Emphasize the structure of your lecture by providing an outline of the lecture on the board and make sure the connection between past and future classes is clear. Two possible opening gambits are, first, to raise a question that will be answered by the end of the lecture and, second, to state an historical or current problem that is related to the content of the lecture.

At the close of the lecture, round off the class period by summarizing the main points, by restating the premise, or by returning to the opening question. As was discussed earlier, one example of a truly significant point will not be enough for undergraduates who are just beginning their studies in your subject area. What may seem overly repetitious to you will probably be just right for your students. You should also prepare the way for the next class period. The end of the lecture is a good place to emphasize the relation among the ideas you have just presented, those presented earlier in the course, and those that will be dealt with in a subsequent lecture.

*How can I improve my lectures?*—The most obvious way to improve your lectures is to get objective feedback about what you are presently doing. For example, you might ask a faculty member whom you respect to sit in on your class. You can also benefit greatly by asking a peer or a neutral third party to observe your class and then later talk to you about it. Alternatively, if you are uncomfortable with either of these suggestions, you can simply tape your own class session and then listen to it later. The important thing is to get as much feedback as possible, ideally from a number of different people.

*Which is the best way to prepare a lecture?*—There really are no hard-and-fast rules for producing good lectures. Approaches to crafting a lecture are as varied as are approaches to writing a paper. The following list of questions, however, may help you think through and organize the information you are planning to present.

### *Questions to Have in Mind: Preparing a Lecture*

1. Who are my students? What can I assume with absolute certainty that they know? What evidence do I have for these assumptions? How can I discover their assumptions and misconceptions? What kind of misconceptions might they have about the subject? How can I correct for those misconceptions? What do I want them to know?
2. What are the major points that I wanted to get across in this lecture? If my students walk out of the lecture knowing only one new idea, skill, or concept, what would it be? What concrete examples can I use to emphasize these points? Can I think of any examples that draw on my students' own experiences?
3. Do these points fall into any kind of a natural order? Can I use temporal structure? Can I use some kind of logical structure? How can I convey that structure to my students?

4. What kinds of connections will my students have to make to previously covered material? Should I plan to supply those connections, or can I justify why I want my students to make them independently? When and how can I help the students connect the information I am providing with knowledge and skills they already possess?
5. How does this lecture fit into my overall plan for the course and how does it relate to the other material we have covered?
6. In what ways will my presentation be different as a lecture from what it would have been as an essay on the topic?

## DISCUSSION TEACHING

Like an effective lecture, an effective discussion has a beginning, a middle, and an end that are all controlled by the agenda for a particular session. An effective discussion, like an effective lecture, moves toward one or two major points. Unlike the lecture, however, this process is not controlled by one individual presentation. Rather, the discussion leader must walk a fine line between controlling the group and letting its members speak. The most common pitfalls in a discussion—all exacerbated by lack of organization and clearly defined goals—are overly long digressions, pointless arguments, or no real discussion at all. The advantage of the discussion is that it provides an opportunity for the members of the class to work actively with the ideas and the concepts that are being pursued.

Fostering effective discussion is difficult; sometimes even experienced faculty fail to get certain combinations of personalities to enter into discussion. How authoritarian and explicitly directive you will want to be will vary according to your own individual style and your class, but underlying this sometimes overt and sometimes covert control are two principles. First, effective discussion leaders know their students. They know which students have which skills and perspectives and will often use this information to decide whom to call on to keep, or get, the discussion moving in the appropriate direction. Second, a good discussion leader never operates without some kind of a general plan. Occasionally, as a result of the comments or questions your students raise in class, you may find it necessary to adjust or alter your objectives in the midst of a discussion, but, without a general plan at the outset, it is difficult to make such on-line decisions responsibly.

Discussion sessions can be an extremely effective means of changing behavior or attitudes. Consequently, they occur frequently in instructional situations in which the goal is to develop problem-solving or critical thinking skills. Because information is transmitted more slowly via discussion than via lecture, discussion sessions are most suited to low-consensus fields. However, even in fields in which consensus about important information is high—for example, mathematics—there will inevitably be moments when having knowledge and some control of the discussion method of teaching will be helpful.

James Redfield presented the original version of the next reading at one of the CTP's spring 1988 Conversations on Teaching. While committing the local heresy of only giving two cheers for discussion teaching, Redfield provides some useful insights into the history of discussion teaching at the University of Chicago and also makes a number of provocative points about this method of instruction. Here and elsewhere, discussion teaching is generally regarded by many as a loftier and

freer expression of the art of teaching than is lecturing, but Redfield argues with this common perception and examines some the hidden dynamics that underlie discussion teaching. His may not be the dominant view, but it is one that should provoke healthy debate and self-reflection.



## On Discussion Teaching

*James Redfield<sup>†</sup>*

The fact that one adopts a topic does not mean necessarily one is for it. I actually am in favor of discussion teaching, but I am about to give only two cheers for it. I find in my own teaching that I use it less and less, which probably says negative things about me. Last week, however, one of my students said that he found the previous two classes very helpful. When he said, “You took control,” I replied, “You mean I was lecturing.” The student who happened to be standing next to him said, “Oh, that’s what that’s called.” In the last month, I have been evaluating programs and observing classes at a number of different places, and I have observed that people always apologize for lecturing if that’s what they have been doing. This highlights one of the major issues about discussion teaching, which is that everybody is for it, except maybe the students. I have a short list of the things that everybody knows are good, but nobody is quite clear why. Discussion teaching is on that list. If you find a sentence in *Newsweek* that begins, “Such and such a college is a place where professors do not lecture, but . . .,” it really doesn’t matter much what comes after the dots. You’re sure it’s superior to lecturing. But the students do complain a lot when we don’t tell them what it is that we know, or when we don’t tell them what they’re supposed to know—two obviously different but related things. People have been making that complaint about discussion teaching ever since Socrates—about whom people regularly used to complain that he wouldn’t tell you what he thought. This was his famous irony.

If you’re going to have a discussion, you need to have some kind of text, so I am trying to produce a lecture here that you can discuss. I think I also ought to note that giving only two cheers for discussion is a local heresy. When I was in the College here, everything was taught by the discussion method. In fact, a band of inspectors was formed, or was proposed to be formed, to make sure that all instructors were using the discussion method. Discussion was run on a very strict set of rules, which included such things as the following: you taught the translation and not the text because the translation was what was in front of the students, so you were not permitted to tell them that the original said something quite different from that; you dealt only with the actual words which were before the entire class, and you were not allowed to bring in anything you might happen to know; you taught only what they had read and nothing else. In other words, it was a very purist school. Discussion flowed very freely in those days, I think more freely than now. But I would observe that the College of that period was partly a secondary school, probably the best secondary school ever produced in North America. Those of us who came in at fifteen or sixteen were getting our upper-level

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high school teaching. When I have taught upper-level high school classes, I have found it very much easier to get the kids discussing. They are less experienced, which, among other things, means they haven't had so many bad experiences, and they tend to be quite willing to tell you what is exactly on top of their minds.

There is at least one style of discussion that requires a certain willingness, shall we say, for the students to free associate. You ask a question; you get an immediate answer—the first thing that occurs to somebody. Then you can rephrase the question and get another one and so forth. There is an easy flow when the students are not censoring. Our undergraduates, however, most of whom have already graduated from highly competitive high schools, are not so malleable. They censor quite a bit. Furthermore, they are more grown up, and they are more competitive. So, in one respect, they talk too little because they won't say the first thing that comes to their minds, and, in other respects, they talk too much when they try to take over the class and run it for you. Both things can be difficult. This point alludes to my major theme in these remarks—that discussion teaching is really an authority problem. If you can't solve it, you get backed into lecturing. Since we are all against lecturing, except maybe the students, this leaves us with a sour taste.

I have thought quite a bit about why we are against lectures. I am going to read you one of my favorite statements about the experience, a poem by Henry Reed, which is frequently anthologized. It is called, "Naming of Parts," written in the mid-forties, about the Second World War:

Today we have naming of parts. Yesterday,  
 We had daily cleaning. And tomorrow morning,  
 We shall have what to do after firing. But today,  
 Today we have naming of parts. Japonica  
 Glistens like coral in all of the neighbouring gardens,  
 And today we have naming of parts.

This is the lower sling swivel. And this  
 Is the upper sling swivel, whose use you will see,  
 When you are given your slings. And this is the piling swivel,  
 Which in your case you have not got. The branches  
 Hold in the gardens their silent, eloquent gestures,  
 Which in our case we have not got.

This is the safety-catch, which is always released  
 With an easy flick of the thumb. And please do not let me  
 See anyone using his finger. You can do it quite easy  
 If you have any strength in your thumb. The blossoms  
 Are fragile and motionless, never letting anyone see  
 Any of them using their finger.

And this you can see is the bolt. The purpose of this  
 Is to open the breech, as you see. We can slide it  
 Rapidly backwards and forwards: we call this  
 Easing the spring. And rapidly backwards and forwards

The early bees are assaulting and fumbling the flowers:  
They call it easing the Spring.

They call it easing the Spring: it is perfectly easy  
If you have any strength in your thumb: like the bolt,  
And the breech, and the cocking-piece, and the point of balance,  
Which in our case we have not got; and the almond blossom  
Silent in all of the gardens and the bees going backwards and forwards,  
For today we have naming of parts.

Among other things, this poem is about what goes on during a class. It's about lecturing as hierarchy. That is to say, the lecturer is perceived as a sign of an established, and, certainly by the poet, resisted authority. The lecturer is someone with a rank, presumably a noncommissioned officer. It is this rank which is the claim upon the pupil's attention. I think our beliefs about how much better it is to have a discussion class involves, among other things, our rooted objection to hierarchy, which is one of the good things about us. One of the great discoveries of postclassical civilization is that every soul is valuable; everyone has something to say; everyone deserves to be heard. We talk about this when we talk about learning from our students. This is one of the things we teachers say, always with a tone of self-satisfaction.

How do you learn from your students? You don't necessarily learn from them because they say anything. One of my teachers, Henry Rago, certainly one of the most brilliant teachers I have ever observed, in my time taught by the discussion method. In fact he is the one who told me about the corps of inspectors. Later in life, Henry pretty much abandoned discussion teaching. He had extraordinary classes in which he improvised his lectures and was so interactive with the students that they felt part of the process the whole time. At the end of ninety minutes, I'd be astonished to realize that nobody had said a word except Henry. He was learning from his students what it was he could get them to understand, or what he could get away with.<sup>†</sup>

When we think of lectures, we don't tend to think of that kind of lecturer. We tend to think that there is a fourth wall separating the lecturer from everybody else. This is of course one of the things that "Naming of Parts" is about, the wall separating the lecturer from the poet, who is having a completely private erotic fantasy of his own. In other words, this mode of instruction leaves the student a certain important kind of freedom. It leaves the mind a chance to wander. In an important sense, the fourth wall of lecturing is a way of leaving the students alone, and that is one of the things that they often prefer about it. While I was at Oxford, where nobody ever discussed, the lectures were just like that. You could go, sit in the back, and take notes or write letters. You could do just about anything you wanted, and the lecturer didn't care. He came in and made sure there were two of you there;

<sup>†</sup> From Redfield's comments after his presentation: "One of the things that makes this model work is high self-esteem; Rago believed in his capacity to get through, to be extremely charming, which he was. In the second place, he believed the most important thing for anybody was that they see the world the way he saw it. I would say that it worked for him because it was his way of packaging an extremely narcissistic personality; he turned it into a performance and made himself into a performer. So I think in that sense it is like acting, which means that it turns not on anything that you can find in the books, but in finding a style that fits your personality. It's very different for different people."

otherwise, he wasn't going to talk; then he talked. Some of them were very brilliant, some of them were very dull. Part of the whole Oxford style was that the lecturers let their students alone because there was an assumption that all real work was done during the vacations anyway. I think there is something to be said for that. We do have a tendency to believe that we ought to be engaging our students at all times; that is one of the things that discussion is about.

To understand this engagement, the contrast between organism and mechanism in the "Naming of Parts" is essential. That is, the lecturer sounds mechanistic, the way the noncom sounds because he has done it before. Probably this officer has explained the parts of the rifle hundreds of times—he's got another platoon; he's got to do it. In a sense a lecture, including this one, is always something that you've done before. Even though I never said these things before, I have these notes in front of me, which means I thought them through once before in a certain kind of order. Yet the process by which I derive these notes is quite different—organic, not mechanistic. Bits of this lecture took form in the bathtub and in the middle of the night and at various other times. The mind kind of wanders around a certain amount of wordplay. Who knows how many ideas you get from puns, from free association? That's the organic side of thought, which we don't usually present. It is the old rag-and-bone shop of the heart where all this stuff gets rolling, but we don't show that; we try to show the finished product. Part of the idea of discussion teaching is that you are going to get into that organic, inchoate, thinking process with the students and try to improve it. I have learned a lot through discussions, and it's of great value to me, but it is invasive. Like any kind of invasive therapy, so to speak, it has to be treated with a good deal of delicacy.

*First dimension: questions.*—Now, let me tell you something about some of the dimensions of discussions, starting with the type of questions. When I was in the College, they used to refer to one type of discussion teaching as "hole in board." You have a whole board that is full of little holes, and you keep pumping the students until you get the peg for the next hole. You put that in, and you go on to the next one. It was beautifully parodied in the movie *Ferris Bueller's Day Off*. The teacher was always saying, "And this is called some kind of supply—what is it? anybody? anybody?" Of course, nobody ever answers him—they're all sitting there glazed. Actually, one of the most brilliant and effective teachers I have ever seen work, Christian Mackauer, taught entirely that way. As a refugee here, he discovered that he was expected to work by the discussion method, which they do not have in the gymnasium in Germany, so his solution to this problem was to leave little gaps in his lectures and have the students fill them in for him. It was a very funny effect. I remember one time he was trying to explain something about the Reformation, using the Book of Job, and he said, "Of what does the Book of Job consist?" Some kid in the front, guessing, said, "Prophecy." "There is no prophecy in the Book of Job," said Mackauer, and I, in the back row, could not resist quoting in a carrying voice, "I know that My Redeemer liveth and that He shall stand at the latter day upon the earth." Without missing a beat, Mackauer said, "Of what does the Book of Job *primarily* consist?" He was a star, by the way, and one of the most popular teachers of his period.

I don't really mind that style when it is working. It has a kind of quiz show quality that can keep the student awake. It's like playing Trivial Pursuit. I am somewhat more hostile to it when what it really represents is a personal intellectual agenda. You're trying to get an evaluative answer, and what you do is just keep talking the students out of any other answer.

You say, “What do you really think about this?” When they say something, you say, “You don’t want to think that, do you?” until you finally get the one you want. This notion of discussion can be contrasted with the other end of the spectrum, where all the answers are right. Since we don’t really think everything is right, we can’t really tolerate that one, either. I do know a wonderful secondary school teacher who says that everything the students say is wonderful. She is well aware of the fact that it costs her something. She puts up with a lot, but she believes that this kind of unconditional positive regard produces work from her students that she wouldn’t get otherwise. While this works for her, I just think most of us are not capable of doing it, and, if we were, we’d be in something more lucrative like psychotherapy. You have certain personal limits—in terms of the interaction you can really handle—on the amount of positive regard you can hand out.

This dimension of discussion leading ranges between two kinds of questions: (1) questions that are centered on the student’s personal sense of the subject, such as, What do you feel about this? which tend to suggest that everything is right, as when people think King Lear is a comedy, which is wrong, and (2) questions of the What do you see right here? kind, when you point, saying, “Show me where it is,” that claim an absolute objectivity. Now, this second kind of question is of course very Chicago—we’re famous for it. Somebody like Wayne Booth takes the view that there is a whole level of things that should be common ground in a text. After settling on the things that everybody really ought to settle on, then you can start being as pluralistic as you like. Booth was a student of R. S. Crane, whose whole critical theory was that, if you want to understand the text, you have to look at it to see how it works. Booth told me he went to see R. S. Crane in his last illness almost every day; when he came in one morning and said, “Well, R. S., you’re looking better today.” Crane whispered in reply, “What’s your evidence?” It was also R. S. Crane who, when somebody, I believe it was a nun, started a sentence in one of his seminars by saying, “Well, I feel . . .,” said, “Your feelings are of no interest to us.” Crane really held to this notion of absolute objectivity. I think there ought to be some way in which you can work back and forth between the evidence and your own sense of it.

*Second dimension: the role of the chair.*—The second dimension of a discussion is whether it runs through the chair or whether it flows freely. In the last month, I have seen a number of classes in which the students did almost all the talking. I was able to sit through a seventy-minute class in which the instructor said nothing more than, “Tomorrow we’re going to read such and such.” The students just opened up, having been conditioned to do that. The amount of training that goes into doing that is really quite impressive. I cannot do it at all. My so-called discussion classes are run almost entirely through the chair. When people talk to me, I throw it back; then somebody else puts in something else, and I throw it back. It’s like playing tennis with a group. In this type, the authority of the chair is obvious; in the other type it’s not so obvious. In fact, in the cases in which the students are doing all the talking to each other, you do have to be able to stand it that all these neat ideas that you have are not being expressed. In these discussions, the teacher is, nevertheless, very present as an audience. This is not the way the students would talk sitting around the dormitory. They understand that there are rules, and they’re learning to adhere to them.

My own style, as I say, does not work with questions but responses. I do not, however, consider myself any kind of model teacher. When a class is working best, I think it is a little bit like Rago’s lectures; that is to say, it gets to be a cooperative construction. People feel

they are a part of a process of putting it together. It's a little like building a freestone wall. Once, when I was walking in the country in Tuscany, I met a man who was building such a wall. He told me it was a proof of God's providence. He said, "I keep working on it until I get a very funny-looking little shape like this. Then I reach around, and there is a rock that exactly fits in it." A good discussion class is like that. You get all these brand new shapes, and you put them together. You don't, however, always get God's providence.

*Third dimension: direct versus cross-examination.*—The last dimension of discussion leading is the difference between direct and cross-examination by the teacher. This is again always focused on the chair. Direct examination can be either the What do you see? question or the How do you feel? question, but you are really interested in the student's answer. Then there is the Socratic method, which is a process of cross-examination in which you have no interest in the actual opinions of the other person. You are simply using the questioning method as a way of enforcing your will on them, which is a general rule of cross-examination. When using cross-examination in a court of law, you should never ask a question to which you do not know the answer; you should also know what the next question is going to be.

The Socratic method is very hard to do. The only person I have ever seen use it effectively is the late Joe Schwab. He was certainly one of the spectacular teachers of my day, and he was very Socratic. Joe was the only teacher I have ever seen who made you feel that he just opened your head and made you think. In his earlier years before his psychoanalysis, no class was complete until somebody had been reduced to tears. In his later years, he only made you feel like crying. He was absolutely ferocious. When people talk about Socrates, they talk about him the same way. Socrates really makes you feel lousy. There's something fascinating about that, and Joe always drew a crowd, just like Socrates. In other words, the Socratic method is, of all styles, the most authoritative, and I would put it at the widest sort of distance from the lecturer, which, as I say, really leaves you alone. The Socratic is the most invasive style of teaching, the one that has to be handled with the most care.

*Final observations.*—I have just a few final points. First, some people seem to think that somehow discussion is a way in which people individualize themselves, and everybody gets to have their own opinion. The lecture is much better for that because, as I say, it leaves you alone. Discussion is a consensus process, and, insofar as it is working, it creates a group that tends to draw people closer and closer together and cuts off the edges on them. You are building that freestone wall together. What you're always aiming at is agreement. You have to think about that, particularly in those areas that are highly politicized or that are highly stressed for the students. The more you run your class as a discussion, the more pressure will be exerted on their personal lives to conform to the local group norms.

Second, any discussion is highly authoritarian in some way, even the ones, as I say, in which the students do all the talking. A discussion class, when it is working, is like a charismatic community. It has very much the ideology of the commune because they're always built around somebody, the leader, who is always saying in one form or another, "You can do and think anything you want, as long as it is one of the things that I think you should do and think." There is a kind of instituted liberty within rather narrow limits built around that personality. I think that is okay, too, when done well by people with a good will, but as Sam Goldwyn said, "I've been reading about this hydrogen bomb, and it's dynamite." You have to be a little careful.

Finally, the first thing I learned as a teacher was that nobody is a good teacher for everybody,

which I found a very bitter lesson. Slightly later in life I learned the corollary, which I found even worse in a way—that just about everybody is a good teacher for somebody. You meet these incredible klutzes, and it turns out there is somebody out there for whom they have made all of the difference. This observation led me to conclude that teaching is not a method, it's a name for a whole group of social situations in which all kinds of things happen and about which it is not possible to say anything really very useful on a technical level.



As they prepare to engage in discussion teaching, most beginning teachers are well aware that getting students to talk can be problematic. In fact, when asked about their greatest fears prior to entering the classroom, many will articulate concerns about how to keep the discussion moving and on track. To be truly effective, each discussion session must also work within the course as a whole. One way to provide that context is, before each class, to assign specific tasks such as study questions to provide a common ground for the discussion and focus the students on the goals of the course. Another method is to introduce the topic for the day at the start of class and to list the subareas that should be covered, but, as many beginning teachers rightly anticipate, supplying this information may not be enough. The following sections respond to questions teachers raise about the typical problems they encounter in discussion teaching.

*How can I be sure the students will talk at all?*—In large part, you control the progress of a discussion by controlling the kinds of questions you pose before and during the session. For example, when you want to generate some real debate, then the questions you pose should offer a genuine starting point for debate. More commonly, however, most discussion leaders simply want to get people talking about the topic at hand, assuming heated debate will come later. Perhaps the most straightforward method of encouraging participation from as many people as possible is to ask questions with multiple rather than single answers. For example, instead of asking, “Why is the ending of *Wuthering Heights* a good one?” you could ask, “What are other ways in which Emily Brontë might have ended *Wuthering Heights*?”

Similarly, at the beginning of a discussion session you might simply ask students open-ended questions such as, What did you think about a particular chapter (or article or whatever)? The actual structure of these open-ended and multiple-answer questions will vary somewhat depending on the task at hand, but they have several advantages. First, they decrease the odds that you will be met with silence once you have finished asking your question. Second, because they encourage multiple viewpoints, they also lessen the problem of having the brightest—or most vocal—student in the class answer and dispose of the question straight away, thereby resolving the problem from which you hoped to develop a discussion. Finally, if you record these multiple responses on the blackboard, they can provide the beginnings of further topics for discussion; students will commonly participate more freely in discussions when they feel their own concerns and ideas have contributed to the agenda.

*Are there other things I can do to keep students talking?*—In addition to posing the right kind of question, the teacher must send clear signals about the kind of exchange that is desired. In other words, once you pose a question that asks for real debate, you must pause long enough for someone to pick it up—not necessarily the first person who raises a hand. If you must do so, look away from

the class and count to sixty, slowly, before calling on anyone. Rapid reward for answering promotes the programmed answer even to an opinion question; students will provide the answer you have already programmed into the course. If silence follows after the first person presents an opinion, you must pose follow-up questions, such as, How do the rest of you feel about it? You must make it clear that the students should listen to each other and not just to you. Not waiting after posing a question is one of the most frequent errors many beginning teachers make.

Beginning teachers make another common error when they fail to repeat students' inaudible questions and answers, an error that is especially problematic in classrooms in which the students all face the front of the room. A good rule is to repeat the correct portions of all comments—either questions or answers—made by a student. Restate complex or inaudible questions posed by students for the whole class. Pursue the topic with the first student by asking for clarification or elaboration, by requiring more analysis (e.g., What are the reasons for thinking this? and What is the opposition to this point?), or by refocusing the discussion by asking, “If this is true, then what are the implications for . . .?” Show attention yourself by building on a student's point, by withholding judgment until you have several responses, or by listing the multiple responses on the board and asking the students to regroup.

Despite this attention to student input, however, students do expect the teacher to control the discussion. When it is time to move on to another of the subareas of the topic that you want to cover, ask for a summary, or summarize yourself before moving ahead. When tangents develop, make the connection to the main topic or the subarea as defined on the board. In other words, at transition points, remind the students of your goals and their responses.

Another approach to getting active participation is to make it clear from the onset that you will call on those students who do not volunteer. However, depending on how you handle the responses they give you, just calling on students can have a stifling effect, especially for the more reticent members of the group. If students are off track when you call on them, try to extract those aspects of their responses that were correct and then ask a more directive question. Simply negating a student's response and turning to another student with exactly the same question generally does not help to maintain active participation by all students.

*Are there types of questions I should avoid using?*—With a few exceptions, no. Every form of question has its purposes, but, before you can know whether the question you asked was the wrong one, you may need to give some thought both to the objectives you had in mind when you asked the question and to what kind of dynamic that particular type of question establishes. For example, if you ask the question, Does everyone see how the uses of sexual passion in these two works differ? you may not get much of a response from your students other than a few nods. If this question is meant to summarize a discussion you have just had, why not ask, “Would someone please summarize the major differences between the uses of sexual passion in these two works?”

The opposite case—that of asking too many questions with real answers at once—can be equally problematic but generally has a great deal more potential. It is fairly common to hear teacher ask a string of questions such as, What is Faulkner doing here? How does he use Addie's death? Did she have to die? What is the result of her death? If you don't provide your students with any explanation as to why you have posed so many different questions, they may not respond simply because they do not know which question to answer. Generally speaking, teachers use these strings of questions when they realize they have asked a question that is currently beyond the reach of the class. They then try to break that question down into the subordinate questions that can be used to solve the original question. When you find yourself doing this, the simplest solution is to let your

student know how each question is related to the others.

The only type of question you should avoid because of the debilitating effect it can have on classroom dynamics is that which effectively act as a put-down to your students. For example, the questions, Who can reword her answer the way you think I would say it? and Anybody so confident in his answer that he wants to put it on the board? have an off-putting quality to them that is unlikely to foster healthy exchanges in the classroom. In general, however, most questions have their uses. The important thing is to determine which kind of information and dynamic you are really hoping to establish and then to look at how you have framed a particular question. Nearly every question can be recast for a different effect.

*What should I do if I lose control of the discussion?*—When beginning teachers raise this question, they usually are thinking about one of two classroom situations. The first of these involves the highly vocal student who dominates a group, a situation that is dealt with in some detail in the later section about coping with problem students. The other situation is somewhat more benign and involves something akin to digression en masse. In this situation, the entire class appears to have a goal for the discussion that bears no relation to the one you intended or stated at the beginning of the class.

When this happens, it may be a good idea to listen for a while until you have some idea why they might have settled on their own set of issues rather than accepting the ones you intended. Once you have some idea of what their implicit agenda might be, try to summarize the key points that have been made. If it seems appropriate, you could then ask the group to connect their points for debate with those you originally made. If they are unable to do so, you now have important information that will help you to plan subsequent sessions or alter the course of the present one.

In other words, when a discussion continues to go off in unplanned directions, it may be because the students simply do not have enough information to engage in the discussion you intended. Because they cannot answer your questions, they end up by answering their own. Try to determine whether there is information you could have supplied them first—that is, via a small lecture—that would allow the discussion to continue in a more fruitful direction. Is the topic at hand too controversial for them to deal with objectively? Are there ways you could limit it to make it less volatile? Sometimes, finding out what your students are thinking and how they will respond to a given question is more important than momentary control. However, you should try to reassert your authority by the end of the class, which is essentially what you accomplish when you summarize the points they have made and connect them to the original questions posed at the beginning of the class.

*How can I improve my discussions?*—In general, discussions have the potential to provide you with immediate feedback about how successful they were. If your students were all engaged in healthy debate over the proper topics at the designated times, it was a good discussion. Even if you generally have good discussions in a particular group, it is often useful to determine why or how you might have changed its course. As is true of lectures, the most obvious way to improve your lectures is to get objective feedback about what you are now doing. Ask someone to sit in on your class. Take a tape recorder to class. Get as much feedback as possible, ideally from a number of different people. (See also Getting feedback from others, below.)

*Which is the best way to prepare for a discussion?*—As is true of the lecture, there are many approaches to preparing a discussion. Here again, the following set of questions should help you

get started as you are preparing the questions that will form the basis of a particular discussion.

### *Questions to Have in Mind: Discussion Teaching*

1. If my students leave this discussion with one or two key ideas or insights, what would they be?
2. Who are my students? What can I assume with absolute certainty that they know? What evidence do I have for these assumptions? What misconceptions are they likely to have about the topic? What misconceptions are they likely to have about what is expected of them in the class?
3. How did I arrive at the ideas I am trying to convey?
4. How important is it that we achieve consensus? Do I have any points on which consensus is imperative?
5. On which points will I be most tolerant of divergent viewpoints?
6. With which kind of group process am I most comfortable? Do I want to control the whole agenda, or is it reasonable that the students should be active in setting part of it? Do I plan to take attendance? Do I plan to call on my students? If I do not plan to call on students, do I have an alternative plan for encouraging participation from the whole group? How will I handle digressions?
7. What kinds of digressions are likely? How might I make them work for the goals of this session?
8. How does this class session fit in with the last class discussion? With subsequent ones? With the course as a whole?
9. Are there parts of this class that would be better served by the lecture format?

### SPECIAL TOPICS

#### *A Word about Teaching Assistants and Section Leaders*

Although the specific terminology varies from department to department, teaching assistants are those individuals who conduct sessions that meet in addition to lecture presentations by faculty members. These sessions most commonly serve as an aid to large lecture classes, and the primary purpose of the sessions is to amplify and clarify the concepts covered in the lectures—often through problem solving and discussion. Teaching assistants are in a unique position because they often deal with only a subset of the members in a class and, in some senses, must function not only in an instructional role but also as a mediator between the undergraduates and the professor.

As noted earlier many of the ideas outlined under discussion leading are appropriate to the teaching assistant. Because teaching assistants are often just beginning their graduate training, especially in the physical sciences, they are often more uncertain about how much they can offer their students. One of the keys to making this position work is to realize its unique and full potential. The teaching assistant role is an excellent one for demonstrating how to approach the material at hand in a more effective manner. Many students, especially freshmen, may begin by assuming that your role is an information-giving one. Make it clear from the start that the information you provide is meant to supplement, not replace, the information presented in the main lectures.

Let your students know from the outset that your sessions with them will be used to help show them, largely through demonstration, how to arrive at more appropriate questions, how to avoid the conceptual pitfalls, and how to approach the material in a more efficient and systematic fashion. Unlike the pure self-contained discussion group, the agendas for your sessions with students will be entirely determined by the questions and problems that your students encounter with the material.

The secret here is to learn how to be organized yet spontaneous and to show students through your behavior that you are there to help them. Be careful about using sarcasm or humor in responding to questions because an excessive use of either can inhibit students from expressing themselves freely. Also, before you begin, you should make a point of talking with the professor about the rationale and goals of the course and your section. You should also plan to attend most of, if not all, the lectures. In view of the overall agenda for the course, you can then begin to define your objectives as clearly as possible.

As you are reviewing the material or attending the lectures, try to remember the kinds of obstacles that you encountered in learning the material. Keep a list of these obstacles and raise them as initial questions when you begin a session. Find out whether your students experienced similar kinds of difficulties and confusion with the concepts, lectures, or problem sets.

Often it will help for you to encourage your students to attempt to articulate what they do not understand. In other words, generally students will merely indicate that they are confused by a concept or a section of their text, but they cannot articulate which aspects of that section or concept confuse them. Before you begin to address a topic, problem, or concept try to get your students to specify explicitly what is and is not clear. By keeping the issues and topics narrowed to very specific questions, you will be less likely to accidentally lapse into unplanned lectures, and the students themselves will be more likely to stay on track.

Once you have addressed one specific question on a topic, before going on to a new topic, you might then ask for related questions from the other students. Often these remaining questions can be clustered, and it will usually be more efficient to deal with clusters of similar questions rather than take them one at a time. When a question is raised that is too detailed or threatens to take the discussion on a tangent, you can avoid counterproductive digressions by responding briefly to the question but by then inviting the student who has raised it to meet with you later—either after the session or during your office hours. It is permissible to stop a discussion short but only after giving a brief explanation for why you are doing so and what the conditions are for getting the question answered.

In short, the sessions you conduct should remain as task focused as possible. Also, you should always strive to stay in touch with your students. Although all teachers must continually assess what their students can and cannot do, teaching assistants must be especially cognizant of any difficulties their students may be having. Yours is an excellent position for personalizing the subject matter for the students and also for providing concrete feedback to the professor of the course

about those aspects of the lectures that have been the most and the least accessible to the students—information that is only rarely available to faculty when they teach large lecture classes.

### *Improving Your Teaching through Feedback from Others*

Teaching can be a rewarding experience. At the very least, it is an opportunity to share information about a field that is stimulating and interesting to you. Just as important, many instructors find that teaching is an occasion for discovering aspects of their field that they might not have otherwise noticed. How you feel about your teaching experiences will largely depend on the quality of the exchanges you have been able to have with your students. That is, success and proficiency tend to beget enjoyment.

Getting feedback from your students is a good way of developing better teaching skills. Unfortunately, obtaining candid and useful information from your students is not always easy. Most of them will be reluctant to evaluate your efforts openly. However, there are a number of things you can do, including asking your students, in order to obtain the kinds of feedback that will be essential to improving your teaching.

Objective third-party observation is one frequently used method of obtaining feedback about your teaching. There are many people who can help you think critically about improving and evaluating your teaching. Many graduate student instructors will be routinely evaluated by the faculty member in charge of the course. If this is not an integral part of your instructional assignment, you can still ask to be evaluated. If you have not been assigned a supervising faculty member, you might want to approach someone who has an interest in undergraduate education and whose teaching you respect.

Alternatively, many beginning instructors find it easier to be evaluated initially by a fellow beginning teacher. This person can be someone in your own department, but this is not absolutely necessary. People outside your field can often provide extremely valuable information about your teaching, especially with regard to those parts of the material that will be the most difficult for your students to understand.

Even if you decide to invite a third-party observer to your classroom, remember that asking your students for feedback about your teaching may provide different kinds of insights. However, the timing of this feedback is very important. Most people tend to think of a student evaluation as something that occurs at the end of the quarter, but this is in fact not the best time to obtain, or use, the information your students can provide. Rather, you may want to consider getting feedback from your students as early as the third or fourth week of the quarter.

When you request feedback early in the quarter, most students realize that the information that they provide influences how the rest of the class sessions will proceed. Students in the College will generally respond quite positively to this realization by providing constructive comments about your teaching. Many experienced instructors are comfortable obtaining feedback informally and verbally from their students. Less experienced instructors often are more comfortable reserving a few minutes at the end of a class to ask their students to fill out a questionnaire.

A model for such a questionnaire follows. Although this questionnaire was designed to be used by new instructors in mathematics, instructors in other disciplines can undoubtedly see which kinds of changes are necessary to make it suit their own purposes and class situation. The important thing in designing such a questionnaire is to ask as many questions as possible that will require students to describe as well as to evaluate your performance in the classroom.

### *Mid-Quarter Student Feedback Questionnaire*

Instruction is most effective when there is a good fit between student and teacher. Creating a good fit requires feedback—both from teacher to student and from student to teacher. This questionnaire has been designed to help me learn about those aspects of my teaching that have been the most and the least useful to you thus far. Most of the questions are fairly open-ended, so please be as descriptive and constructive as possible. Thank you.

1. How do you feel about the pace of this course? Is it (circle one) too slow? too fast? about right? If you circled either “too fast” or “too slow,” what would you like to see changed?
2. Do you generally feel encouraged to ask questions in class? If so, what has encouraged you the most? If not, what could I do to make it easier for you to ask questions?
3. Do you generally find the text to be useful and easy to follow? What aspects of the text, if any, are confusing or difficult to follow?
4. When I use the blackboard, what is my greatest strength? My greatest weakness?
5. When you go over the homework and quizzes that are returned to you, do you understand the comments and corrections that have been made? What kind of feedback has been the most helpful? The least helpful?
6. Do you find that my office hours are ones that would be convenient for you if you needed to see me? If not, what hours might be more convenient?
7. Do I have any annoying habits that I should know about (e.g., do I say, “um,” six times in every sentence)? ( Please use the back to answer this question.)

### *Using the Blackboard*

Using the blackboard effectively requires considerable practice. Although most of us will recognize ineffective blackboard practices when we see them, obvious errors frequently mar our first attempts at developing this skill. Unlike the information we convey verbally in the classroom, information that is placed on the blackboard will generally be copied verbatim into your students’ notes. Therefore, it is extremely important that you carefully monitor not only what you put on the blackboard but also how you put it there. The following are just a few of the most basic reminders to get you thinking about developing effective blackboard techniques.

1. Begin by removing all the board work that is left over from a previous class.
2. When you solve problems on the blackboard, remember that students use what you write as a model for their own problem-solving behavior. Do not put work on the blackboard that you would not like to find on a homework assignment or test.
3. Always read aloud when you write. Otherwise your students will be copying what’s on the board after you have gone on to the next point.
4. Before elaborating on the information you have put on the board, turn around and face the class. If they look lost or are scribbling furiously, wait a minute or two before proceeding.

5. Periodically check your blackboard work by walking to the back of the room after class. Can you reconstruct the points you were making easily from what is left on the board? Is the writing large and heavy enough to read easily?
6. Do not erase new material until you have been away from the board for several minutes.
7. If you naturally have very small handwriting or if your handwriting is difficult to read, try printing when you write on the board.
8. After you have put new material on the board, underline or put boxes around important points to emphasize them.

### *Your Professional Responsibilities*

Beginning instructors frequently ask questions about an assortment of issues and problems that have not been covered in the previous sections. The following section provides brief answers to the more common questions of this sort. You should also know that there is an official document of *Policies and Procedures Regarding Teaching Schedules, Grading, and Advising*. If you have full responsibility for a course, you should have received a copy of that document. If you did not, you can obtain one by contacting the Office of the Dean of the College.

*Should I take attendance?*—Some faculty members in the College do not take attendance, especially in large lecture courses. However, you should plan to take attendance, at least initially, for several reasons. First, by taking attendance, you let your students know that you are serious about their being in class and that you expect them to be present. Second, some state and federal financial aid programs now require a student to certify attendance, especially in the event of a poor performance. Finally, one of the first signs that a student may have academic or personal problems will often be irregular or nonexistent attendance in their classes. While there may be a number of legitimate reasons why a student misses several classes, especially at the beginning of the quarter, continuing problems with attendance should usually be checked out. After the first assignment has been handed out, students will generally have gotten these legitimate conflicts resolved. If one of your students continues to have difficulties after this point, it is probably a good idea to call that student's College adviser. The adviser will generally know, or be able to find out, whether the student is ill or is having difficulty in other courses. If the situation needs to be checked out further, you and the adviser can discuss how to go about it most efficiently.

*What should I do when I suspect plagiarism or cheating?*—Obviously, the best approach to academic dishonesty is to try to prevent it from happening in the first place. On occasion students are accused of cheating when, in fact, they believed they were operating within the letter of the law for a particular course. For example, many freshmen are unfamiliar with standard procedures for how and when to quote or give credit to others. You avoid many misconceptions when you clearly specify your standards and expectations for when they may collaborate with their fellow classmates and how and when they must give credit to others.

Plagiarism and cheating are considered to be very serious offenses in the College. The College does have a policy regarding academic honesty, which is printed in the current College catalogue. Your best recourse when you suspect that a student is cheating is probably not to try to handle the

situation yourself. With a first offense, students are not usually subject to severe penalty, but it is best to report instances of academic dishonesty in case the student is following a similar pattern of behavior in another class. If you are being supervised by a faculty member, you should report the suspected incident immediately to that faculty member. After that, or if you are not being supervised by a faculty member, the dean of students in the College should be informed about the situation.

*Is it ever acceptable to date one of my students?*—The answer to this question is a simple and unqualified “No”—not for as long as he or she is your student. When you assume instructional responsibility in the College, you also assume a professional position that precludes many social possibilities because the relationship is no longer nonhierarchical. However limited your instructional role may be, it is nonetheless a position of authority, and that authority should not be brought into a personal relationship—for the sake of your professional responsibilities and for the sake of the potential personal relationship. Ultimately, however, the burden of responsibility is with the instructor. The official policy adopted by the University Senate in May 1990 regarding consensual relations between faculty and students is as follows:

Because those who teach are entrusted with guiding students, judging their work, giving grades for paper and courses and recommending students to colleagues, instructors are in a delicate relationship of trust and power. This relationship must not be jeopardized by possible doubt of intent, fairness of professional judgment, or the appearance to other students of favoritism.

One of the unstated tenets of our policy and our commitment to a climate free from sexual harassment has been the view that it is unwise and inappropriate for faculty who have romantic relations with students to teach such students in a class, supervise them in research or graduate work, or recommend them for fellowships, awards or employment. Prudence and the best interest of the students dictate that in such circumstances of romantic involvement, the students should be aided to find other instructional or supervisory arrangements.

Although it is possible for any beginning teacher in the College to feel a strong attraction to one of his or her students, this situation is particularly troublesome for those who are just beginning their graduate studies and thus are closer in age to the College students to whom they have responsibilities. In any other context, the students they are instructing would be suitable candidates for friendship or romance. In addition, the problem is often made more difficult by the College students themselves, who will be less conscious of instructional responsibilities.

If you find yourself in the awkward position of being attracted to or pursued by one of your students, there are a number of possible solutions to the problem. It may, for example, occasionally be possible to have the student transferred to a different section. However great the temptation or frustrations, do not act on your feelings. If necessary, discuss your feelings with someone who can help you sort out the issues, such as an adviser or another faculty member.

*How can these and other problems best be avoided?*—Many problems can be avoided by controlling your own behavior. Maintain a tactful but businesslike tone and do not frequently deviate from the course topic. Never ridicule a student—any student—whether in your class or not. Do not discuss one student with another. Do not discuss the faculty or your peers. Remember, the students expect you to be in charge. You are the representative of the institution and your field. You are not the students’ friend—friends do not give grades or wield discipline. You are their mentor. If you have trouble picturing yourself as an authority who knows all, try picturing yourself

as the leader of the expedition, as your class explores the subject of the course.

If you are a graduate student, the line between your role as a student and your role as an instructor can be especially confusing and can lead to some common pitfalls. The students trust you to provide a productive atmosphere in the classroom, and it is crucial to maintain that trust. If a class goes awry, talk with your peers and other faculty to find out how they would deal with the situation, or use one of the College resources available to you.

*What do I do with the student who tries to dominate the class?*—Some loudmouthed students who dominate the class may be unaware they are doing so. Start by suggesting that you would like to hear from other students as well, but invite the loudmouth to talk with you after class, if he or she wants to discuss something in more detail. Many times this is the only remedy you will have to take, although you may have to apply it a few times during the quarter. Some students in the College just like to talk and will occasionally get carried away.

If this gentle remedy does not work, you may have a more difficult problem on your hands. The first thing to do in this case is to remain calm, or the situation may escalate to disrupt the whole class or the whole course. The second thing is to get the student out of the public setting of the classroom, where the other students provide a forum. Never debate your pedagogical decisions such as grades or objectives for the course in the open forum of the classroom. Offer students an opportunity to air their grievances in private. Let them air all grievances, repeat the main points to make sure you understand them, and show a genuine willingness to compromise when possible. Express your regret when you cannot compromise, but indicate that the student has been heard.

*What if I think a student is having other kinds of problems?*—Students in the College are all very bright and capable. Over ninety percent the entering students will have graduated in the top ten percent of their high school classes. Nevertheless, many of them will experience a number of different kinds of pressure that may easily prevent them from achieving in your class. One common problem for many first-year students is that, because they were generally among the top students in their high school classes, they expect to be equally successful in the College. Obviously, if the College population as a whole is composed of people from the top of their respective high schools, it is less likely that any one individual will rise quite as easily to the top of the total class here.

Simply put, many new students feel threatened and defensive when they get their first set of grades. Oftentimes they react as if the grades they receive are indicative of their attributes as a human being, not a measure of how closely what they produced met the grader's expectations. You are immensely useful to your students when you help them to interpret these and similar situations in a more reasoned manner. Perhaps you had a similar experience or had friends who did. In many cases just talking candidly with students about their expectations for their own performance and about things they might want to try to improve will be enough. In other cases, some students may be struggling academically, and you may not have the time or the expertise to help them. The College provides a number of resources, starting with the College adviser, for undergraduates who are experiencing academic difficulties. Encourage your students to take advantage of these services.

Many beginning teachers also wonder just how much they should try to help when a student comes to them with personal or emotional problems. Probably the best alternative, if you are comfortable with it, is to listen to what the student has to say and ask a few questions that might help clarify the issues in much the same way you would for a friend. Many times all that students

really need is a friendly and more experienced ear. If you are comfortable providing it, fine. Do not feel, however, that you need to provide ongoing counseling for your students. It is probably best that you do not.

In general, when students come to you with problems either academic or personal, try to listen carefully and give the best advice you can. However, be clear about what your limitations are as you offer that advice. If you feel that you are over your head in a particular situation, there are two alternatives open to you. First, you can suggest that a student seek more expert advice elsewhere. Although some students resist seeking professional help, when you describe why and how they might benefit from additional help, they are more likely to follow through on your suggestion. If at all possible, refer them to an individual person rather than to a particular agency.

*What about grades?*—Beginning teachers soon discover that grading assignments can be a difficult and occasionally perplexing task. Because many decisions about grading are dictated by a particular course and its goals and objectives, only the most general issues are covered below. Official College policies about grading are covered in *Policies and Procedures Regarding Teaching Schedules, Grading, and Advising*. If you have responsibilities for grading, you should, if possible, consult with an experienced faculty member in your department.

Once you have decided on your objectives for the course, grading becomes largely a process of translating those objectives into quantified performance standards. Make sure the class understands exactly what success entails. Tests must always test the right thing to meet the course goals, or else students direct their energies to the source of the grade and away from your goals. The students should not be good at the course at first, so you need to leave room within your grading system for improvement. Yet the grades should not cause all your students to abandon hope.

Hand assignments back promptly. Students are less likely to go the extra distance for a subsequent assignment when they do not know how you evaluated an earlier one. Quite simply, if they don't know where to put the extra effort, they don't put it anywhere. When you hand back a graded assignment, report on the section averages and offer a way to address the common mistakes. Discuss the best answer in the group but do not embarrass a student through praise or criticism. If possible, hand back graded material individually, not in a public folder or box where the privacy of the individual is not respected.

When grading a stack of papers or tests, establish consistent criteria for all of them, take frequent breaks, grade all of one question at a time, and then shuffle the paper and grade all of the next question. Be positive in tone, make the most important problems clear, and do not overwhelm a student's writing with yours. Summarize at the end so the student knows how to focus both on what went wrong (and how it can be corrected) and on what went right. Note improvement. Never use a grade as a threat. If you cannot be objective about a student—through dislike or affection—ask a colleague to check on your grading. Avoid favoritism or the appearance of favoritism—the class needs to feel they can rely on your fairness.

Keep a record of the grade distributions for each graded assignment. If the grade distributions are consistently skewed, you may want to look at your standards more closely. Clusters of grades may indicate that your assignments or the standards you are using do not differentiate well among different levels of performance. Although it is possible to have a class in which all the students are performing equally well, more often clusters of scores will indicate inappropriately designed testing and grading methods. Further, if all your students fail a particular assignment, you should try to determine why. It is simply not reasonable to assume that all, or even nearly all, the students in a class in the College are incapable of or unwilling to produce acceptable college-level work.

Finally, try to keep the students focused on the learning processes involved in completing assignments rather than on the evaluation process. If they feel they are learning something and not just being judged harshly or arbitrarily, they will be more likely to accept, value and try to comply with the standards you set for them.

#### THE PROFESSION OF TEACHING

Most of you have probably come here because of the University's reputation as a research institution, but Chicago also has both a long and a distinguished history as a teacher of teachers and a rich heritage of commitment to excellence in undergraduate teaching. These last two readings have been included because they provide interesting perspectives on the profession of teaching.

Wayne Booth was the keynote speaker for the CTP programs at the winter 1987 workshop. Booth's assignment was simply to share his insights about and enthusiasm for teaching. Although he begins with some disparaging comments regarding the value of generalizations about teaching, he concludes by offering a hopeful vision of his profession's possibilities.

Jonathan Z. Smith, on the other hand, inaugurated the CTP Conversations on Teaching in April 1988. When he was approached with an invitation to speak at this new series, Smith indicated that he would like to talk about an issue of great interest to him—that, when we teach, we often must also lie to our students. In discussing the liabilities and benefits of the different kinds of lying that occur in the classroom, Smith questions what we can be and should be up to when we teach, especially when teaching introductory courses.



#### What Little I Think I Know about Teaching

*Wayne Booth<sup>†</sup>*

As I was thinking last week about what should be said to a bunch of graduate students preparing to be teachers, I met a colleague in the corridor of Regenstein Library. A winner of the Quantrell Prize for Excellence in Undergraduate Teaching, he had just seen the announcement of this event [The Student as Text], and he growled, “You know and I know that all that stuff is crap. Nothing is really known about how to teach well; the most that could be known would be how to make students like the class and the professor and thus believe, probably erroneously, that they have been taught something worth learning.” Greatly encouraged by this outburst, I happened to meet a professor of education here in the hall, and I asked him, “Phil, what is really known about teaching?” His reply: “Not much! I’m just reviewing an 1100-page book summarizing educational research. In my view, the book is pretty discouraging. There’s really not a lot of hard knowledge to report.”

I next looked into a little book sent me by a former student, *A Celebration of Teachers*, published by the National Council of Teachers of English (Urbana, Illinois, 1985). I found

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some wonderfully inspirational memories by famous people, mostly writers, describing the unsung great teachers who changed their lives: Peter de Vries told how John de Boer, his first high school English teacher, teaching one of his first classes, made his pupils into “kindred spirits, . . . responsive to his dazzling mind, his richly humanitarian spirit, and his deep love of . . . literature.” Madeleine L’Engle remembered a sixth-grade teacher, also in her first teaching job, who “was the first person in all of my school life to see any potential talent in this shy, introverted child. Bernard Malamud said that Clara Molendyk “was very fond of her students and made us feel expansive, free, and useful.” Art Buchwald blessed a Mrs. Marie Gorking, at P.S. 35 in Hollis, New York, who, finding that Buchwald could not resist clowning, “gave me the opportunity to perform in front of the class in exchange for shutting up when she was trying to teach grammar.”

I wonder how many of you would be able to respond with similar memories when asked about some one or two teachers who made all the difference. Well, that’s surely what we’re talking about today, isn’t it?

In any case, since I could find no clear generalization from all that, I turned to a new book from Jossey-Bass, called *Distinguished Teachers on Effective Teaching*, edited by Peter Beidler (1986), and again I found such a plethora of seemingly contradictory suggestions as to make me almost despair about our project today.

Clearly we should begin cautiously and humbly, though I hope not despairingly. We’re talking about the most difficult of all arts. Like all arts, it surely must depend in part on knowledge, but, like all arts, it depends on knowledge that is elusive, manifold, and resistant to clear formulation.

In short, if generalizations are dangerous, and I think they usually are, they are especially dangerous about teaching. There is no recommendation that will work for all teachers, or, as my colleague Jamie Redfield likes to say, “No teacher, not even the best, succeeds with every student, and there may be no teacher who succeeds with no one.”

Suppose we begin by trying out three generalizations.

*1. Good teaching is dramatic, colorful, lively, entertaining.*—Right? A Dean at Earlham College thought so once, and, when bad reports came in on the teaching of Tom Bassett, Assistant Professor of American History, he called the poor man in and told him to jazz things up a little. Bassett thought about it and appeared before his class in Colonial American history next day sporting a Davy Crockett costume, shooting off a cap pistol, and shouting “Yippee-ee-ee!” The result, almost needless to say, was disastrous. The episode reminds me of a story I heard recently about a professor of physics at Harvard who last year taught his unit on jet propulsion by putt-putting himself into the classroom in a jet-propelled wheelchair, repeating the act at the end of the lecture. I can’t help wondering whether his students were as contemptuous as Tom Bassett’s.

At the opposite extreme from such shenanigans is my memory of one of the teachers who taught me most in graduate school. George Williamson violated every technique of good teaching that anyone has ever thought of. He would come into the classroom and shuffle, shifty eyed, to a little platform, open an attaché case in front of him, in such a way as to preclude all eye contact, focus his eyes alternately on the text and a far high corner of the room, and proceed to explicate T. S. Eliot’s poems. It took me several weeks to realize that I was learning a lot, far more than I learned in many a more engaging class.

2. *Good teaching results from passionate engagement with the subject.*—Well, of course it sometimes does, but I've known—indeed I now know—teachers who are deeply learned in and passionate about their subjects who just don't get through to even the best students, except at the most advanced levels, and that rarely. By the same token I know others whose learning is superficial and casual, who care more indeed about the stock exchange than about scholarship, but who in teaching younger students manage to wake up the sleepy, convert the hostile, and change lives in what I consider good directions. Perhaps even more significantly, I can honestly say that my own worst teaching has often been about those subjects on which I consider myself expert. The novel that I have taught most ineptly, the one that I now refuse to teach, is the one I did my dissertation on, *Tristram Shandy*. I just know too much about it—and I try to stuff it all in at once.

3. *Good teaching results from caring for students, from "teaching the child, not the subject," as the cliché goes, or from "teaching the whole person," or, in the terms of our program today, from taking the student as text rather than, say, Socrates, Shakespeare, Thucydides, or the Second Law of Thermodynamics.*—Since most of what I want to say might seem to be a recommendation of this one, I won't dwell on the exceptions to these claims—there's no use in turning you off at the beginning. But I do want to underline the following warning: Perhaps more bad teaching has resulted from a misapplied concentration on personality exchange, in the name of serving the student, not the subject, than from any other practice.

With those warnings against any generalizations you hear from anybody else today, I shall now of course offer some hard indubitable truths about teaching, my own deep wisdom acquired through four decades of perpetual anxiety and frequent failure. Actually I have only one, a big one, one that I really believe in, with no surrounding ironies or discountings: bad teaching most often results from a pursuit of the wrong ends, either because the teacher is unclear about his or her purposes or because plausible but harmful purposes get in the way of good ones. There are of course many legitimate purposes of teaching, depending on different subject matters and circumstances, but I want to suggest that in America today one purpose that is legitimate for some occasions has been allowed to intrude harmfully on too many occasions in which it is not only inappropriate but destructive. I mean the aim of conveying information, of covering material. We are an information-burdened society, and the loading of information into minds conceived as memory banks has come to dominate far too much of our educational practice. Much of the information loading is of course described in fancy, respectable terms. One current prominent movement in my field, sparked by Secretary of Education Bennett, based on a bit of misreading of E. D. Hirsch, calls it "imparting cultural literacy." In science courses, it is often disguised as something called problem solving. That title makes it sound active and somehow connected with thinking, but the student is too often left going through the motions that no real problem solver ever went through—the abstracted paths that were worked out as a retrospective explanation after the problem had been solved. In history, information loading has long been deplored, but it is still, I would judge, the main goal of far too much instruction.

Of course there are many occasions when information loading is proper or even necessary, but I think they occur mainly in the precollege years. We are here talking about college

teaching, and there is one crucial difference between teaching a sixth grader, say, and teaching a college student. The pupil has to go on to the seventh grade whether he or she wants to or not; the college student is free to drop the subject permanently at the end of the course. As our appalling attrition rates tell us, college students are free to proclaim, “Never again.”

So I like to think about a different goal, one that doesn’t prevent all imparting of information but one that certainly complicates our thinking about what we are up to: good college teaching is the kind that promises to make the teacher finally superfluous, the kind that will lead students to want to continue work in the given subject and to be able to have the necessary intellectual equipment to continue work at a more advanced level. A crass way of putting this goal is to say that the good teacher is out to make converts to his or her field—not necessarily to turn students into majors or professionals in the field but to turn them into adults who will continue learning in that field either professionally or as amateurs. William James once said that you could tell an educated man by what sections of the daily newspaper he could read and understand. (Of course James said “he,” not “he or she”). That may seem like a fairly low-level goal, but actually it’s not bad: what kind of success could a teacher claim when a student, ten years later, meeting the subject in some journal, popular or learned, turned away from it in disgust or the conviction that only boredom lies ahead?

What follows for teaching when the teacher tries to ensure that students will want to continue and will be able to continue after the end of ten weeks or a year or four years? Note that our goal is not that the student should want to continue with this teacher; that kind of loving attachment is relatively easy of obtain—and often dangerous when it comes. Love of the teacher is not a goal of teaching but a dispensable and often dangerous by-product of the goal, which, to repeat, is freedom from the teacher and attachment to the subject.

First and most important, it follows that any given course should be viewed not primarily as a preparation for some future course or future experience but as an end in itself. It may seem paradoxical to say that, if you hope for a future that includes your subject, you must not teach to that future but to a delight in learning in the present moment. But it’s not a paradox. Love cannot be prepared for with hate, at least not usually. What I have loved today I will want to have more of tomorrow. This means that ideally—and no teacher realizes the ideal—each day’s class should be so rich in the excitement of learning that every student will say, at the end of the day, “The high point of my day was that class. I can’t wait to see what we’ll learn there tomorrow.”

Obviously, this doesn’t mean that Tom Bassett was wise when he chose to dress up like Davy Crockett. Primarily it means for me that I can never be satisfied when I think students are not led, by the situations I set up, to take an active responsibility for what is going on now and what will go on next week. To deliver a lecture and assure myself that every student is dutifully taking notes may give me the illusion that they are learning actively, and of course some kind of activity is going on even when notes are taken in boredom or hostility. But that kind of receptive role, even when the student retains some of what is received, I think of as passive—though Professor Voss assured me yesterday that all theorists of education now agree that there can be no such thing as passive learning: to learn anything at all we must have an activated mind that grasps it, in whatever form. This must be so, if we mean by “passive” a simple blank indifference. It is certainly true that the theorists I admire most, in contrast to what many prophets of artificial intelligence seem to say, agree with Professor Voss that whatever the mind does is done by constructing, constituting, grasping, not just by taking in or receiving or containing or retaining.

Perhaps a better contrast would be between responsible engagement and obedient receptivity. The kind of active learning I'm hoping to see more of is the kind that takes responsibility for where a given moment is to go, in contrast to the kind of receptivity that leaves it entirely to the teacher's authority to determine where things are to go.

When we take that contrast seriously—when we really pursue a responsible engagement—certain things follow about classroom practice, especially about the proportion of lecturing and discussion, and about the kind of lecturing and discussion we engage in. It does not follow that we should never lecture, or that all discussions produce responsible engagement, but I think it does follow that any technique that allows the student to leave the classroom assuming that the task of thinking through to the next step lies entirely with the teacher has somehow failed. I suggest that that doleful effect, that hurrying away after class to something else that is really engaging, is produced much more often by lecturing than by seriously planned and executed discussions.

It is no doubt true that highly skillful lecturers can earn the kind of engagement I have in mind. A good lecture, like a good essay or book, demands the thoughtful engagement of everyone within earshot. It's also painfully true that so-called discussions that simply drift, with no one holding anyone responsible for saying anything worth saying, and no progress made on some recognizable question, can leave students in a state even more disengaged than when they are taking notes from a well-organized lecture. Some decades ago here in our College, a group of teachers conducted a careful experiment comparing lecturing and discussions. They chose a group of teachers who were thought to be among the best lecturers, and another group thought to be among the best discussion leaders. They then did audio tapes of their classes, and played them back to individual students. At regular intervals they would stop the tape and ask the student, "What were you thinking about at that point?" Recording the incidence of distraction—"I don't like the color of his tie; I don't like her hairdo; I can't think what to say to my boyfriend tonight"—as compared to the incidence of concentration on the subject, they got what was for them disappointing results. They were enthusiasts for the glories of discussion classes, and they found that the lecturers had the attention of more students more of the time than did the discussion leaders. Shocking. So they went back and asked a different set of questions, focusing on the incidence of active thought about where the current topic should lead or about how to do something with it. They found that discussions did considerably better than lectures on that one. The bad news is that, as I remember it, neither lectures nor discussions did very well—I think about the best anyone managed was to keep about twenty-five percent of the students, on average, away from distractions—though of course there were high points when nearly a hundred percent were engaged, and other moments when almost no one was.

If there were time, I would be glad to offer you my short list of principles for good discussion. But time is running out, so here are only a couple that obviously follow from our principles:

1. You've got to get them talking to each other, not just to you or to the air.
2. You've got to get them talking about the subject, not just having a bull session in which nobody really listens to anyone else. This means insisting on at least the following rule in every discussion: whether I call on you or you speak up spontaneously, please address the previous speaker, or give a reason for changing the subject.

3. You've got to find ways to prevent your own relapse into a badly prepared lecture disguised as a discussion. Informal lectures are usually worse than prepared ones.

Second, certain practices follow for reading and writing assignments and testing. I won't have time to talk about this, but I ask you to think back on the assignments you have been given, and the testing you have suffered—and then think about just how little of that pile of stuff really engaged you in self education. My own thinking in this way leads me to use fewer examinations, fewer quizzes, and more papers, including frequent one pagers that require students to come up with pertinent questions and possible answers to them. You don't know anything about a subject, or anyway about most subjects, until you can put your knowledge into some kind of expression. Trying to put it into a form of intelligible expression is usually the best path to active engagement rather than obedient receptivity.

Finally, in this little list of untrustworthy generalizations, I would urge you to resist planning too far in advance. Just how far is too far may be hard to determine, but it is extremely difficult to teach engaged responsibility when you have fixed all the fights from the beginning. Leave room for improvisation, for improvisation even in the last minutes as you are walking into class. It was Art Buchwald's teacher's improvisation at a specific moment that leads him to honor her now. Leave the reading list to some degree open, so that, when you discover an unusually well-prepared or badly prepared group, you can shift gears. Above all, leave room for your own learning—for the chance to discover and teach something you didn't know when the course began. After all, our basic choice of purposes here should apply to you as well as to your students: will you want to continue learning about and teaching this subject a year from now or ten years from now? Not if you've gained nothing from what happens in the encounter, nothing more, that is, than the sense that students came out with what you had when you went in. That's not enough; every class should be for you as much as for the students, and it cannot be that unless there are many moments of opening out into unforeseen learnings.

The art of teaching a given class or student a given body of data is one thing. The art of building a life as a teacher is quite another. Good teaching, whether judged as what is good for the student or for the teacher, might be judged by a simple thought experiment that I sometimes conduct for myself when I feel discouraged about how little my students seem to learn. Picture either the student or yourself at the end of the year, thinking back on the course, or at the end of four years, thinking back on many courses. Word comes over TV or radio that the nuclear war we all dread is upon us, that Chicago has been targeted by the enemy, that Star Wars is failing as badly as everybody of any sense predicted it would—we are doomed to die horrible deaths in five minutes. Looking back on the year or years of education in that final retrospective flash, would I say to myself, "Damn it all, I did all that preparation for a future that will now not come. All that career building—and no more career! I wish I had spent my time on this or that other more valuable or pleasurable activity"? Or would I, and would my students, be tempted to say something like, "Well, if I had known what I now know—Oh, Oh! There goes the first blast, off above Evanston—I would have spent these last years, these last months, this last week just as I have done, on that most clearly self-justifying of all human activities, learning how to learn"?



## The Necessary Lie: Duplicity in the Disciplines

*Jonathan Z. Smith*<sup>†</sup>

George Bernard Shaw once made a wisecrack that I think defines the academic disciplines as social entities: “I may be doing it wrong but I’m doing it in the proper and customary manner.” This raises at least two questions that I would like to examine. First is the white lie, which comes up when we are self-conscious about speaking in a nondisciplinary fashion about our subject. Second is disciplinary lying, which is part of the process of initiating somebody into a discipline. Indeed, disciplinary lying may be the marker of what it is to belong to a discipline.

*The white lie.*—We lie, it seems to me, in a number of ways. We sometimes cheerfully call the lie words like “generalization” or “simplification,” but that’s not really what we’re doing. We’re really lying, and lying in a relatively deep fashion, when we consistently disguise, in our introductory courses, what is problematic about our work. For example, we traditionally screen from our students the hard work that results in the production of exemplary texts, which we treat as found objects. We hide consistently the immense editorial efforts that have conjecturally established so many of the texts we routinely present to our students as classics, not to speak of the labors of translation that enable many of them to read these texts. Then we read them with our students as if each word were directly revelatory, regardless of the fact that the majority of the words are not in the language in which the text was written. In fact, we have a curious strategy of when and how we decide to display some of this hard work. For example, Chinese or Japanese texts in translation read like Yiddish—every third word is followed by some indecipherable foreign word in parentheses as if this would in some way enhance understanding. We are really reminding our students that this is foreign and hard to understand. In Shakespeare, we display an enormous glossary material, implying that this, too, is a foreign language that, nevertheless, can be mastered with effort. Yet the King James Bible, another Elizabethan text, is characteristically taught in God knows how many humanities courses across the country with never a single footnote indicating that the language, while simpler than the language of Shakespeare, is just as foreign and just as difficult. One would like them to note, for example, that the word “let” often means to stop somebody from doing something, and the word “prevent” at times means to let them go ahead and do it. One gets odd moral conclusions by reading the King James Bible without such footnotes, and yet our mutual lie is that it is infinitely accessible while Shakespeare is accessible with difficulty; foreign texts remain inaccessible.

Moreover, we conceal from our students the fields-specific, time-bound judgments that make objects exemplary. We display them as if they are self-evidently significant and allow the students to feel guilty when they do not feel this self-evidence. We rarely do what some German critics have called a reception history of the object in front of us, examining why or how the object became in some way exemplary of humankind in a particular discipline.

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Thus, when we deal with a figure like Plato, we rarely reflect on the fact that, after all, the dialogue that was Plato for the Western world for most of its history (i.e., *The Timaeus*) is no longer read. Jefferson and other wise people despised *The Republic* thoroughly, finding it an absolutely impenetrable document. They thought Cicero—today all but dropped from the canon—was the place one went in order to think about democratic institutions. That is, we don't introduce our students to the fact that the artifacts that we examine are scarcely blooming with self-evidence. We conceal the revisionary histories of the objects we examine. If they're written works, we conceal their drafting and their changes. If they're scientific objects, we conceal the history of failed experiments and the history of sheer serendipity. That is to say, we convey to our students a specious perfection of the object and a specious necessity to the history of that object.

When we conceal from our students our hard work, that which is actually the way we earn our bread and butter, we produce a number of consequences. I remember testifying once before the California state legislature and facing a legislator who wanted to know why professors should be paid to read novels, when the legislator himself read novels on the train every day. Well, that was the price of our disguising the work that goes into things. There are, I think, more serious educational consequences. If we present the work as perfect or as work without a revisionary history, then we present a work that no student could hope to emulate. Indeed it serves, if it serves at all, as a standard for how far below that standard the student falls. If we present the material without displaying the effort that goes with it, students tend to conclude that things are true or false, or alternatively, that it's entirely a matter of their opinion whether the object is exemplary. In that case, what we have is a contrast between his or her feelings and my feelings. Thus, in the name of simplification, what we really end up doing is mystifying the objects we teach at the introductory level.

Similarly, still in the name of simplification, we treat theory as if it were fact. We treat difficult, complex, controversial, theoretical entities as if they were self-evident parts of the universe that we inhabit. Students coming out of introductory courses in the humanities know that there is such a thing as an author's intention, and they regularly and effortlessly recover it from the text they are looking at. Students in introductory social sciences know that there is such a thing as a society that functions, and they effortlessly observe it doing so. Students in introductory sciences are wedded without their knowing it to a tradition of induction from naked facts, in what Nietzsche called "the myth of the immaculate perception." Indeed, I've often argued when teaching in the social science Core that, if I could only have the first week of Chemistry 101, my job would be infinitely easier because at least we would have raised the possibility that one wears eyeglasses when one gazes at these naked facts.

Despite the proud claim that we make over and over again that we teach the how rather than the what of the disciplines, we, in fact, do not; it is the theoretical conclusion that our students underline in their books. I spend a half hour with each of my students looking at what they've underlined, and they've always underlined the punch line and never anything that might be called the process that led up to it. That is to say, theoretical entities have been reduced to naked facts. The process of discussion often becomes one of show and tell for these unproblematic, now self-evident conclusions. In other words, we have skillfully concealed from our students the power of the remark once made by a mathematician, "I have my results, but I do not know yet how I am to arrive at them." Even a false generosity with respect to method conceals the process when we present this method one week, that method another week, allowing none of them to have the kind of monomaniacal power or imperialism

that a good method has when we're honest about it. Without the experience of riding hell bent for leather on one's presuppositions, one is allowed to feel that methods have really no consequences and no entailments. Since none of them is ever allowed to have any power, none of them is ever subjected to any interesting cost accounting.

Another way we end up reducing our students to the notion of a subject being all opinion (and we're very angry when they assert that to us) is the way that introductory courses, whether seminar or lecture, whether of a large field of study or a small field of study, are never introductions. They are always surveys. They may be shorter surveys or longer surveys, quicker surveys or slower surveys, but nothing is allowed to be truly troublesome. It suggests that one might think that a freshman seminar devoted to a single work is probably a far better introduction than our vaunted Core. That is to say, one really ought to be able to work on a limited number of exemplary objects and to answer all the various sorts of questions that one might come up with. Though I don't like a lot of the framework, Jeff Robinson has a book, *Radical Literary Education*, about a classroom experiment in which he takes the introductory English class through a reading of a Wordsworth ode for an entire semester at Colorado State. They're into a complex unpacking and unfolding of the enterprise. I'm not terribly thrilled with the message he'd like you to get from this; nonetheless, the strategy, it seems to me, is one worth looking at.

*Disciplinary lying.*—The self-justified white lie is done in the name of our students, in the name of simplifying, of generalizing, of speaking to a wide and a diverse audience. However, one also has to look at the place in which lying becomes built into the structure of things, in which it becomes that which constitutes a discipline as a discipline over and against other disciplines. Here, at least in principle, we lose the excuses that go with the introductory course. One would presume a student who had been through a program of rigorous disciplinary lying would emerge at the conclusion of his or her baccalaureate experience with some measure of sophistication. Yet, when I used to do something called the dean's seminar in which we talked about the disciplines as seniors graduated, I was struck by their lack of the sense of the conventionality that governs what we do. These seniors still sought the cost-less method, the cost-less theory, even at the end of two to three years of allegedly depth study in a field.

Fields are taken not only as self-evident but as singular, without real understanding that what's a style for one is not a style for another. Take a simple example in my own field. If I want to publish an article in one of two general journals in the field of religion—*History of Religion* and *The Journal of the American Academy of Religion*—I have to at least redo the notes. *History of Religion* does the so-called humanities-style notes and *The Journal of the American Academy of Religion* does the so-called social science-style notes. It's not just that it's inconvenient; what I am doing is fundamentally altered by which of those two styles I accept. In the humanities, the footnote is exegetical, and you will accept what I say on the basis of my exegesis of that particular passage. On the other hand, when I read something that says, "Levi-Strauss 1970–83," I'm supposed to find the one sentence in a four-volume work that justifies the paragraph I have just read. That's a very different understanding of how you justify your work. That really is an authority model, which has very little to do with any claim to exegesis. Yet, one never talks about such differences with students.

I discovered a stunning example of disciplinary lying in a book by the now late Nobel Prize winner, Richard Feynman, *Surely You Are Joking, Mr. Feynman*, written for no other purpose that I can determine but to make money. He writes, rather cockily, that he finds world travel

a rather dull way of spending a vacation, so instead he travels to another discipline. He spent one summer working in the biology laboratories at Cal Tech, and, according to his report, his results were significant enough to interest James Watson and have him invited to give a set of seminars to biologists at Harvard. Yet when he wrote up his results and sent them to a friend in biology, his friend laughed at Feynman. As he recalls, “It wasn’t in the standard form that biologists use, first procedures and so forth. I spent a lot of time explaining things that all the biologists knew. Edgar made a shortened version, but now I couldn’t understand it. I don’t think they ever published it. I learned a lot of things in biology. I got better at pronouncing the words, knowing what not to include in a paper or seminar and detecting weak technique in an experiment.”

Now, that’s really, when you stop to think about it, a rather remarkable paragraph. Consider how much Feynman is signaling when he uses the phrase, “It wasn’t in the standard form that biologists use.” Feynman tells us that he did get some sense of the language domain of the field—how to pronounce the words—he did learn something of the tacit conventions—what not to say, what was not needed to say—he learned something about what counted as appropriate according to the conventions of the fields. What he could not recognize was the fictive modes of accepted disciplinary discourse. As a result, we have a Nobel Prize-winning physicist who, when he writes up an experiment, is laughed at by his biological colleagues; when they write it up “properly,” he is incapable of understanding his own work.

This is what lying in the disciplines is all about. It is constructed very much as an initiatory process. As some of you may know, among the southwestern Amerindians, as well as among a number of other people, initiation consists of an act of unmasking. Certain figures wear masks and are called gods. When you reach the age of maturity, the elders take you to the other side, the figures take off their masks and show you, “hah, hah, hah, it’s just good old Uncle Joe,” as if you hadn’t recognized that earlier. At least the convention is “now we unmask.” A great deal of what a discipline does is initiating its neophytes, pulling rugs out from under things you thought you knew and unmasking things you thought were clear. The initiated use another kind of language, forming a set of those who are in on the joke. When we talk about disciplinary instruction, we’re talking about creating a corporate entity arrived at through an initiation that proceeds through a rigorous sequence. Within some of the sciences, in theory at least, that sequence is carefully arranged. It’s carefully structured from elementary school to postdoctoral work as one endless and lengthy series of unmasking what you thought you knew. The ideal, often quoted in books on science and education, is the breathless individual who, when Oppenheimer was at the Institute for Advanced Research at Princeton, was asked, “What is it like to study with Oppenheimer?” and who responded, “It’s wonderful. Everything we knew about physics last week isn’t true.” Well, this is what it means to be an initiated member of a discipline. The science you learned in elementary school is no good when you get to high school, which is no good when you get to the first year in college, which is no good by the second year of college, and so forth.

What, however, happens to the person who doesn’t stay the course? This notion of the delayed payoff is problematic. My son came home very depressed from high school chemistry because he said he “got an experiment wrong.” I told him that you can’t have an experiment wrong. An experiment is trying to find out something. You put your two things together, and you found out something. He said, “No, no, no, it wasn’t the way it was supposed to come out.” Well, then it wasn’t an experiment. If he performed the same experiment in college,

they could show him twenty-eight more variables that went into the results, and he would have understood that he didn't get it wrong. If that is his only experience with science, he'll never have that particular idea unmasked.

In most of the fields that we teach, there is no such even rudimentary recognition of sequence or corporate responsibility. Too often the sequence listed in the course catalogue is only political, requiring one course with each professor in a department. The majority of concentration programs, or for that matter graduate programs, don't acknowledge the underlying initiatory sense that what we knew for sure yesterday we now know as somewhat problematic.

Though I think there is something to disciplinary lying, I think there is very little to justify introductory lying. In the case of the introductory courses, we produce incredibly mysterious objects because the students have not seen the legerdemain by which the object has appeared. The students sense that they are not in on the joke, that there is something that they don't get, so they reduce the experience to "Well, it's his or her opinion." On the other hand, disciplinary lying—the conventions within a discipline—enables me to get moving. You have to allow me some measure of monomania if I am to get anywhere. I can't do my work when I have to stop and entertain every other opinion under the sun. This is why such work must always be done in a corporate setting, so that the monomanias mutually abrade against, so that they relativize each other; so that the students, the initiates, are let in on the joke. I had an old teacher who, when you said something you thought was very smart, would say, "That's an exaggeration in the direction of truth." I have always thought that was the best definition I have ever heard of the academic enterprise.

**PART II:**

**A BRIEF INTRODUCTION TO THE COLLEGE**

## PART TWO:

### A BRIEF INTRODUCTION TO THE COLLEGE

The baccalaureate program at Chicago is different from most undergraduate programs. In particular, two unique aspects of the undergraduate program are likely to affect your experiences as an instructor in the College: the curriculum and the academic advising system. Although the following sections are not exhaustive, even a cursory treatment of these topics will give you a better vantage point from which to understand and respond to your students.

#### THE COLLEGE CURRICULUM

The University is divided into four graduate divisions (biological sciences, humanities, physical sciences, and social sciences), the College, the professional schools, and the committee on public policy studies, each headed by a dean and each responsible for granting its own degree. The College enrolls almost 3500 students and is the University's only undergraduate unit. The College constitutes one third of the University, the other two thirds divided equally between the professional schools and the arts and sciences graduate programs. Over ninety percent of the students live in the residence halls or in the Hyde Park neighborhood. All students in the College follow a curriculum having three components: (1) general education, (2) a concentration program, and (3) free electives. A total of 42 quarter courses are required for a College degree.

Beginning teachers are often surprised to discover how different the core or general education requirements are from distribution requirements in other undergraduate programs. There is, in fact, some danger in drawing parallels between general education sequences in the College and core courses elsewhere. General education sequences are not survey courses, but they are designed to expose students to substantive course work in each of four areas of academic inquiry. The following is an outline and brief description of the core sequences.

In light of the unique curriculum in the College, it may be helpful to keep several things in mind. First, unlike distribution requirements at other colleges, these general education courses and sequences are clearly more ambitious in their educational goals. If you are teaching one of these courses, remember the general function of your course is part of what all students in the College should master. Second, your class roster may include students who plan to major in the field, but it will also include many who do not and who thus may have significantly less preparation in and proclivity for the field. Third, because the general education requirements represent fifteen of the total forty-two course credits required for graduation, students often try to complete them in their first two years in the College and may not begin specialized course work until their third year.

For more information on curriculum requirements in the College, visit the College home page

*General Education: The Core (15 quarter courses plus a language requirement)*

**Humanities and Civilization** (6 Quarter-Courses): Students take a total of six quarters in the Humanities and in Civilization, at least one of which is in Art, Music, or Theater. Humanities and Civilization courses are supported by Writing Interns trained in the teaching of writing by the Little Red Schoolhouse (Chicago's nationally known program on the teaching of expository writing).

**Natural and Mathematical Sciences** (6 Quarter-Courses): Students take six quarter courses in the Natural and Mathematical Sciences, including at least two quarters of Biological Sciences, at least two quarters of Physical Science, and at least one quarter of Mathematical Sciences (which includes Mathematics, Computer Science, or Statistics).

**Social Sciences** (3 Quarter-Courses): Students take a three-quarter sequence in the Social Sciences.

**Foreign Language:** The College believes that knowledge of a foreign language is important, and it expects demonstrated competency in a foreign language before graduation. Competency examinations are administered annually; students may also demonstrate competence with AP scores of 3 or above in certain languages. Courses and examinations are offered in more than twenty-five languages. Language study is supported by extensive Study Abroad Opportunities and a unique Language Proficiency Certificate Program.

Students complete their general education courses during their first two years in the College. Credit earned with 4's and 5's in AP exams, 6's or 7's on 1B exams, and by way of our own placement exams will reduce the number of courses to be taken in the Natural and Mathematical Sciences.

*Concentration Programs and Electives*

Concentration programs provide students with an opportunity to focus on a particular area of inquiry. As a rule, these programs, run by departments and committees in the College and the Divisions, comprise from ten to nineteen courses. Students complete their work in the College with at least eight electives. Elective courses may be taken within any subject matter or discipline, including those falling within the student's concentration.

THE ACADEMIC ADVISERS

Each entering student is assigned an academic adviser. Unlike advising systems in many other colleges, the College advisers are not faculty members in the student's area of intended concentration. Rather, advisers in the College are on the staff of the dean of students in the College. Among their main responsibilities is helping students map out an appropriate program of study and guiding them over any of a number of administrative hurdles. The advisers know a great deal about the College and campus life. Students should be encouraged to contact their advisers promptly about problems or questions they may have about their academic programs, or even for more general

friendly advice.

Similarly, if you become concerned about a student for any of a variety of reasons, contacting that student's adviser should probably be your first initiative. When you receive your class list from the registrar, each student's adviser will be listed according to numeric code. The advisers' codes in one of your handouts. If you do not have the code at hand, you can call the receptionist at the College advising appointment desk (702-8615). More often than not, this will be the only contact you will need to make. If the problem is not one the adviser can solve, he or she will either notify the appropriate administrator or refer you directly to that person.