

Thoughts on Teaching

*Philip Langer, Professor and Chair
Educational Psychological Studies*

This article first appeared in the Graduate Teacher Program Handbook.

Copyright © 1988 by the Board of Regents, University of Colorado.

Beginnings: *What am I doing here?*

It is a question natural to most beginning instructors, and for that matter to those who have been around some time. Those of us for whom teaching has or will have personal significance recognize that some part of one's self-esteem is tied up in how well the students view our efforts, not to mention their own successes and/or failures. Indeed, student evaluation can result in either a major boost to the ego or an utterly destructive psychological event. In short, teaching is important to most of us, and considering the time and effort spent, we want our efforts to be appreciated. The problem is that most of us begin with very little preparation, and while we learn as we go, we often wind up reinventing the wheel. At the end we often wish we knew then what we know now. This article is designed to help you at the beginning of the course.

In a very broad sense, teaching consists of determining what you think the students should know (i.e., objectives), getting that information across (i.e., teaching), and then determining if indeed they have learned the lesson material (i.e., testing). While the model may be seen as deceptively simple, it represents a fusion of psychology, pedagogy, and practical experience. In short, teaching is a developmental process, and success results from both deliberate actions on your part as well as an incentive to change strategies.

What I want to present briefly in this article are some practical suggestions for use in each of the three areas of the model. I will use illustrations primarily from the area of psychology, because it is the content area I teach in. However, what I have to say is not dependent on any specific content, per se.

Objectives: *What should the students know?*

The very first question to ask yourself is: What should the student get out of this course? The question is really a complex one. If the course is General Psychology, for example, while I want the information to be accurate, I must recognize that it is the first course in a sequence. Given the diversified nature of the course content (which is true of most survey courses), I will generally be using rather broad concepts within a number of disparate content areas. Thus, I want to give a basic but accurate outline of the major issues, without adding unnecessary embellishments. Don't forget that the student is generally in the position of trying to put together unfamiliar concepts in a field which is really quite well structured for you. To use an analogy from building, the student's task may be equivalent to framing the house differing perhaps to an already completed structure. Forgetting this difference between student and teacher knowledge sometimes results in the instructor's waxing ecstatic over research findings in some

esoteric area of personal interest or giving interesting but unnecessary data to a student still trying to grasp more critical and basic concepts.

The result is that the student, who is usually not in a position to judge relevance, may well undo the cognitive structure just developed in order to accommodate at best marginal information. Again, if teaching may be considered developmental, so then is learning. Moreover, even if the course is further along in the sequence for majors, try to remember that humans are processors with limited capacities.

The second issue is not to confuse your goals with objectives you have for the student. In short, the critical instructional question is: How will the student demonstrate what has been learned? Obviously, this is tied to the evaluation issue, but nevertheless, somewhere, sometime, you have got to say to yourself that you expect students to be able to do something; they need to demonstrate observable and measurable behavior(s). Let me explain. My lecture content may be about stage theory in memory, but eventually I may request the student to list the stages, discuss the functions of each, explain the interrelationships, trace a specific stimulus through the system, and so forth. To a very great extent this recognition of subsequent assessment will help you focus your teaching, moving from vague and tangential comments to specific sets of concepts. Students, I might add, generally appreciate conceptual specificity. I am not saying that you teach only to the test, but at least give the student some idea of the critical content.

Teaching and Learning: *I'm teaching, but are they learning?*

In the strictest sense, it's difficult to justify to oneself that there is teaching without learning. However, it is sad but true that our best laid plans often go down the tube. The students sometimes do not appreciate our genius and we ask ourselves: What went wrong? In this section I can offer a few suggestions, but in the long run it is a matter of experience and insight.

The first and most obvious problem is one of student motivation. You can always remind the student that there is a grade after all, or hope that the student perceives in some intrinsic manner the inherent value of what you are teaching. To some extent these factors are always operating. However, your best bet is to convey some enthusiasm in your approach and always be prepared. This does not mean you have to put on a dog-and-pony show, or come in with 30 pages of meticulously detailed notes. By your voice and mannerisms, as well as evidence of adequate preparation, you can convey to the student the basic fact that you are not taking the teaching assignment lightly. I still remember an English teacher at the University of Michigan who read slowly and carefully from 3 x 5 index cards. The class, down to the last student, was hoping against hope the ghosts of those poets would rise en masse and destroy the cards.

A second suggestion, regardless of whether you are lecturing to some large group or carrying out a smaller-sized class discussion, is to consider how students encode (i.e., create meaning and store) and retrieve information. I have no intention of discussing the concept of schema, the internal representation of knowledge, but it is clear that how and what we store depends on what we already know and how the information is presented to the student.

From the point of view of the student, each comes to the classroom with a knowledge base which has unique elements as well as some elements in common with others. In addition, at this level of schooling students have probably developed some types of internal monitoring processes. In a large lecture, you probably have to infer the characteristics of the knowledge base, using as a guide what they are supposed to have studied, what you talked about previously, and prior test performance. In a smaller, discussion-type class, you can always ask questions. Nevertheless, the task of the students is to somehow organize what they hear or see, which is dependent in turn on what they already know, the learning strategies they possess, and the way you organize the materials. Moreover, the learning strategies can be very inefficient. Indeed, you may have to instruct them on how to study, particularly if there are skills peculiar to your area of expertise.

Your task, which consists of organizing and presenting the content, is equally important, and you can assist the student in several ways. First of all, organize the materials so that related concepts are grouped together. Often many of us fall into the trap of simply following the text. This may or may not be successful, depending on how well the text does in this regard. Second, use familiar examples. This helps students relate new concepts to older ones. Third, do not overburden your presentation with myriad details. Stress the more critical concepts, and leave finer details to reading processes. After all, students taking notes have to make a lot of decisions about what to include, and with more details the process becomes quite difficult.

In fact, note-taking is in itself a complicated cognitive process. As a matter of personal choice I do not allow commercial operations to take notes for resale. Notes not only reflect individual decisions, but also, a lot of parallel processing. Students are simultaneously encoding what is being written down, and are taking in other data. If they come to depend on the results of someone else's perception of what was important, they frequently miss information they could have used to assist the learning process.

Finally, cue your students in to what is important. You can stress significance by vocal inflection, writing on the board, or simply stating something is important. I have only to announce that a piece of information would make a good test item, and I can watch the dead rise. Be sure to begin your class with an overview of what will be covered and summarize at the end. If the class size is small enough, when you see signs of confusion, stop for questions. Even in a large lecture you can backtrack when confusion is apparent; the signals are most obvious, for example, students looking at each others' notes).

Evaluation: What have they learned, or test time!

Generally, the aura of goodwill in a class (the "honeymoon" phase if you will) ends with the return of the first exam. Some people are simply not going to like you very much anymore. Still, evaluation is the obligation of any instructor, and there is no way you can avoid this responsibility. It is very painful early in our careers, because we are still close to the role of student. Tips on test construction are beyond the scope of this article, but I would like to offer some general advice.

First of all, testing infrequently is much worse than testing too often. Test preparation and evaluation are time consuming, but one bad test in four has far less disastrous consequences than one in two for the student. Second, clearly define at the beginning of the semester what the grading criteria will be. If evaluation includes more than exams, state how much each of the other components is worth. Regard this in the nature of a contract. If a change is made, do it early; otherwise students may benefit or suffer in an unequal manner. Third, if you are going to use a norm-referenced criterion such as marking on the curve, or criterion-referenced yardstick (for example, 90% is an A, 80% is a B), do so throughout the semester. Again, any change must be done early. I might caution that marking on the curve is tricky with small classes, since the average is sensitive to extreme scores and the curve will not be an accurate measurement. Some kind of ranking procedure based on distribution might be better.

Fourth, do not allow some students to ask for (and get) an opportunity for additional work to change their grade; all students must know the opportunity is there. Fifth, unless there is a clerical error, or something equally objectionable, do not change grades involving matters of judgment such as essays exams. Students will besiege you. And finally, do not return exams in class and go over them unless it is a small group. In larger sections, ask students to come see you during office hours. This avoids intemperate exchanges in class and identifies those who want help or would like to use the exam for purposes of study. In the end, good evaluation is akin to good discipline: be firm and consistent. If you think evaluation is important and you demonstrate your willingness to spend time on the process, students will share and respect your values--even if they don't like them.