

STRATEGIES FOR EFFECTIVE TEACHING

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Life was simpler in the not-so-distant past, when publishers distributed only booklets of multiple-choice examination questions to instructors adopting their psychology textbooks. The resources available to an instructor looking for help in planning and delivering a first-rate psychology course were surely limited then—but so were the choices and the time needed to take advantage of the various kinds of available help.

Remembering the past makes it easy for me to sympathize with the frustration many of you may feel at the wealth of helpful information assembled for you. For example, this text has an *Instructor's Resource Book* with a number of modules offering classroom experiments and ways of incorporating computer simulations and videos. It is a notable day in the history of college publishing when it takes almost as long to read the instructor's support materials as it does to read the textbook! The hardest part of using the *Instructor's Resource Book* may be selecting from the rich array of general perspectives and specific teaching techniques offered and then integrating them within the time limits of a single course. I do not exaggerate when I state that it would take three semesters to include all the options suggested in this book in your course. Perhaps this article can help you decide which ones to try.

"Strategies for Effective Teaching" offers general ideas about teaching, although a number of specifics are presented, too. Section I focuses on the five following questions about college teachers and teaching in general:

- Who are the excellent teachers?
- Who are the excellent students?
- What is excellent teaching?
- Why should a teacher bother being better than good enough?
- How can one become an exemplary instructor?

Section II presents a number of specific solutions to three broad clusters of tasks you will face in organizing and delivering your course. They are

- Designing a course
- Motivating and evaluating students
- Handling the nitty-gritty details of class organization

Section I is relevant to every class and teacher; of necessity, Section II treats the specific topics briefly, parts of it overlap somewhat, and others may not be applicable to everyone. The aim is to emphasize "forest" issues relevant to the individual choices each instructor will need to make about designing and delivering an excellent course.

The model underlying many of the suggestions offered here is based on published research about college teachers and on my own informal study of exemplary classroom teachers (Lowman, 1984). This model assumes that, before they are arenas for objective thinking, intellectual discourse, and learning, college classrooms are dramatic arenas, in which effective instructors can use traditional speaking skills to engage and focus students' attention. This model further assumes that teachers must use a great deal of interpersonal skill to optimally motivate all students to put forth their best efforts and to help them move toward a mature, independent learning style. Given the diversity in academic ability, skills, and attitudes seen among today's college students, this interpersonal skill is especially important in transforming a class that is planned well into one that is also delivered well and received well by students.

I will avoid, as much as I can, giving explicit advice on how to teach your introductory psychology course. (Oscar Wilde is reported to have said "All advice is bad; good advice is worse.") Instead, my wish is to highlight what I believe are some critical dimensions and issues underlying the various options available to you as a classroom teacher. Whenever possible, I will describe effective techniques others have used in the general psychology course, techniques that reflect their personal styles and skills more than any standard body of educational prescriptions. I will frequently ask you to evaluate and develop your own style of teaching and

to use your own experiences as student, as teacher, and as human being for a guide to answering the many questions that will present themselves to you. I will also be addressing the "why bother?" question from time to time, when topics relevant to instructor satisfactions and motivations present themselves. As you review this module, it should be apparent that I get a great deal of personal satisfaction from teaching (and from writing about teaching). One of my aims here is to expand your satisfactions as a teacher by encouraging you to examine what teaching means to you and to explore some of the many options outlined here.

One of the biggest differences between a good and an excellent course is not how comfortable students are but whether they emerge from the course changed somehow, having questioned their former ways of viewing themselves and the subject. If, after reading this module, you decide to try some new approaches to teaching in your psychology course, all of us who have worked in preparing the modules will feel our efforts have succeeded.

SECTION I: FUNDAMENTAL QUESTIONS ABOUT COLLEGE TEACHING

Who Are the Excellent Teachers?

Think of the very best teachers you ever had. Picture two or three of the most memorable teachers in college or high school (even graduate school), and remember how they behaved in the classroom and in out-of-class encounters with you. What adjectives describe the image your memories create? If you are like most people, you thought of words like *enthusiastic, stimulating, organized, concerned, and challenging*. People's memories of their best teachers are remarkably similar to factor-analytic studies of student ratings. The most important dimensions seem to be how the instructors make presentations, followed in importance by how they relate to students as people (Lowman, 1984).

I recently conducted a study of student and faculty nominations of professors and graduate teaching assistants for teaching awards at the University of North Carolina at Chapel Hill. Many more students submitted nominations than did faculty members, and most of the faculty who did were department chairs. One-page nomination forms for over 100 different professors and over 30 TAs were assembled, and the adjectives used on them were tallied and rank ordered. In student nominations, the most common adjectives dealing with presenta-

tions were (in decreasing order) *enthusiastic, knowledgeable, interesting, excited, and clear*; the most common adjectives dealing with interpersonal relationships were *accessible* (including *approachable* and *available*), *concerned, encouraging, and challenging*. It is interesting that these same adjectives were also common in the smaller group of nominations received from professors. These kinds of adjectives are also quite similar to those identified in other kinds of research.

At their best, classroom teachers—whether they be graduate assistants or permanent members of the faculty—are seen by students and colleagues as being skilled at creating student interest in the subject and the process of learning it. Whether through personal enthusiasm, clear and interesting classroom presentations, or an energetic, engaging style such teachers make a strong and positive impact on their students. My own observations of exemplary teachers revealed a number of different ways to have this kind of impact. From the flamboyant teacher who uses students to act out the transmission of nerve potentials along axons and across synapses to the quiet but intense instructor who talks about the suspense and sense of discovery she experiences while conducting a series of experimental social psychological studies, there are countless examples of personal styles of giving presentations that make a strong impact on students.

But the best of classroom teachers are also able to communicate to their students a sense of openness and accessibility, a genuine interest in students and their concerns, while at the same time being challenging and motivating. Such interpersonal virtuosity likely stems from sincerely positive feelings for students and an ability to motivate students from within, using indirect methods rather than relying heavily on direct methods of leadership or control. I have observed a number of teachers who, when describing assignments, are careful to avoid phrases like "I require," "I expect," or "You must" in favor of more neutral words like "I hope," "I think you will find," or "You may." Such language subtleties may seem trivial, but they can go far toward encouraging students to work for learning (or intrinsic) rather than for grading (or extrinsic) reasons (Lowman, 1990).

Who are the excellent teachers? To be sure, they are instructors who have applied their talents and energies over a number of years to master and keep up-to-date with their subject. But they are also teachers who have developed a personal style of delivering well-planned, intense, captivating classes, of communicating accessibility to students, and of mo-

ivating students to work independently for intrinsic and extrinsic rewards.

Who Are the Excellent Students?

The title for this section is a misnomer. I am attempting to describe excellent students as a way of focusing attention on the behaviors we want to encourage and reinforce by our methods of teaching, motivating, and evaluating. But the larger group of students on any campus who fall short of excellence will also be discussed. Actually, truly excellent students rarely present a problem for the college teacher. Difficulties most often arise with the undermotivated, the underachieving, and the underprepared.

Still, let's begin with our top undergraduates. Ask a group of college teachers to describe their best students, and you are likely to receive a variety of specific adjectives. My experience has shown that general descriptors, such as *bright*, *hardworking*, or *independent*, as well as specific behaviors, such as "comes to class prepared," "is not afraid to discuss in class," "knows all the information on exams," or "integrates class material on their own," are given most often. Students who show all (or even some) of these qualities are a joy to teach and are too rare at even the most selective schools.

How much influence do we instructors have over these qualities and behaviors? It depends. We probably have little ability to affect intellectual or academic ability, although we do have the power to model the kind of abstract, complex thinking we want. We also have the power to affect the motivational set under which our students work.

Ohmer Milton, Howard Pollio, and James Eison's book, *Making Sense of College Grades* (1986), presents Eison's research on two different orientations that college students show toward their studies. Students with a strong *learning orientation* see classes as a place to satisfy their curiosity about the subject and to meet some of their own objectives, which they usually have for any college course but especially for their electives. Learning-oriented students are usually independent and motivated more from within. By contrast, students with a strong *grading orientation* think of classes in terms of requirements ("Do we have to write a paper?"), the instructor's externally imposed expectations ("What is it you want from us?"), and the necessity of getting degree credits out of the way. For grading-oriented students, the class is an obstacle to be overcome with the least possible cost in terms of time, energy, and the almighty grade-point average.

Milton et al. include Eison's LOGO question-

naire that students can use to assess their strength on these two dimensions. His research suggests they are relatively independent—that is, a student can be high or low on both. He has more recently published a LOGO F scale for college teachers, which assesses the degree to which our teaching practices encourage students to have a learning or grading orientation toward our class (Eison, Janzow, & Pollio, 1989).

Instructors can unintentionally encourage a grading orientation in a number of ways. An example I see commonly among novice instructors is to construct elaborate schemes punishing late exams and papers ("Half a letter grade will be reduced for every 12 hours the paper is late for the first three days, for every 24 hours thereafter"). Such announcements clearly reveal our expectation that students are working primarily for the grade they receive and that we are unable to get them to turn work in on time without the use of external and frequently aversive contingencies. Many instructors report that making no mention of makeup exams or late papers on the syllabus or in class—but being very accommodating to individual students who ask for makeups or extensions—is an alternative approach that reduces late work and our external, controlling role with students.

Another common behavior that encourages a grading orientation is to overemphasize exams and grades during classes. I have observed teachers who will follow almost every discussion of a concept or research finding with "Pay close attention to this because it could be on your next exam." More will be said later about how to construct exams in ways that reduce students' grading orientation.

In spite of the fact that most of our students come to college with a strong history of reinforcement for compliant behavior and with a grading orientation, there are ways instructors can encourage a learning orientation as well. One good way is to routinely assign ungraded work. Try asking students to turn in paragraph-length reaction papers to topics discussed in the textbook chapters ("What are your thoughts after reading the case study of Jennie on p. 45 of Chapter 2?") or at the end of class meetings ("Take a minute to write down the point from today's class that is most confusing to you or that you find most interesting."). Return such papers promptly with minor notes to show that you read (or scanned) them, but give no external credit whatsoever. Asking students to take a look at current journals in psychology and letting a few report briefly at the beginning of the next class also encourages students to do things with no external reinforcer

other than our own and other students' attention.

Some instructors may respond to such suggestions with the question "Is it fair to the students who did the work (or did it well) not to get a better grade than those who didn't take it seriously?" My response is that using an external "carrot" (extra credit or a grade) is decidedly unfair to the students who would have spent the little time involved in any of these assignments on their own. Doing so demeans their intellectual orientation and runs the risk of leading them to believe that they, too, will work only for a grade. The students who do not do the work are the only ones who lose when ungraded work is assigned.

My general point about student differences should be becoming clear. Students vary tremendously in ability, background, interests, motivation, and intellectual values. Almost all enter our classes with at least some amount, however small, of intellectual curiosity about psychology and of the ability to work for independent reasons. They also come well conditioned to adopt a survival mentality, which is geared to working for a grade alone. We cannot be held responsible for differences in ability or for the attitudes students bring to our classes. But we can be held responsible for how much our teaching and grading practices work to inculcate the qualities we see in our very best students: they work hard to meet our and their own objectives for our course. Even if we encounter excellent students all too infrequently, it is useful to think of their qualities when deciding what student behaviors we want to encourage and reinforce.

What Is Excellent Teaching?

In response to a question I had asked about what constituted excellent teaching, a participant in a teaching workshop I once conducted replied: "Good teaching, that's easy. If the students learn the material, it's good teaching; if they don't, it's not." Even before the national debate on documented accountability in education—assess schools and teachers on how much students improve, not on absolute levels of achievement—this was not an uncommon opinion. At first it may seem reasonable to define excellent teaching by focusing only on the outcome of all teaching: student learning. After further consideration, however, it becomes apparent that quality of teaching and level of student learning are related in a much more complex way.

What does the level of students' learning in a given class represent? Is learning mostly a function of how bright students are, how hard they are willing to work, or the quality of teaching they receive?

Or is learning actually a function of a complex set of influences, only some of which directly deal with teaching or are under an instructor's direct control? The model of effective teaching that I prefer incorporates several student and instructor variables as predictors of student learning.

Two student qualities have a great deal to do with how much they learn. The strongest is their aptitude for doing the work required in a given class. For most courses, students' general intelligence, specific academic aptitudes, and mastery of previous course work combine to produce the strength of their *academic potential*. *Student motivation*, as a general personality trait, is also a powerful contributor to learning. It represents not only the strength of their desire for achievement in general but also other motives they may have for doing well in your course. For example, a student who would like to become a psychotherapist someday may be more motivated to do well in your psychology course than in college courses as a whole.

Student qualities have an obvious influence on how much they learn. But so do three relatively stable teacher qualities: organizational and presentation skills and motivation to teach. *Organizational skill* refers to the instructor's ability to develop a course and individual class lessons that are clearly integrated with the objectives selected for the course. *Delivery skill* refers to instructor skill at giving lectures, conducting demonstrations, and leading discussions that are engaging to students. *Teaching motivation*, which is analogous to general student motivation, consists of a combination of intrinsic and extrinsic satisfactions. The level of teaching quality resulting from these three contributions surely plays some role in how much students learn.

How much given students learn or achieve in our general psychology courses is therefore a function of how much academic potential and motivation they bring with them and how skilled we are at motivating them to apply all their talents and energies to the challenges we have planned for them. If we are able to plan an effective course, conduct the individual class meetings effectively, and motivate students to take themselves and our class very seriously, then the teaching will be effective. Effective teaching maximizes the probability that each and every student—the marginally interested student taking introductory psychology to fulfill a school requirement, as well as the enthusiastic psychology major already planning to pursue graduate training—will be motivated to work hard at meeting the challenges we set before them. Even though effec-

tive teaching cannot ensure that every student will show the highest level of learning, it does increase the probability that they will do so.

One important variable was omitted from this discussion of the complex influences on student learning. That is, how motivated is the college teacher to excel in the classroom? The next section deals with this topic.

Why Should a Teacher Try to Be Better Than Just Good Enough?

In my interviews with exemplary classroom instructors, I routinely inquired about their teaching history, especially about what motivated them to develop their high level of teaching skill and what continues to motivate them to put forth the effort required to be effective. I heard a variety of stories about their early years in the classroom. A few saw themselves as "naturals" who immediately felt at home and quickly achieved a high level of effectiveness. More reported mild dissatisfaction initially and a series of false starts before discovering the specific techniques and style that worked for them. A few described themselves as "disasters" who had to make a radical change in their approach to avoid another semester of critical student evaluations. Whatever early pattern these accomplished teachers described, each also described several years—a career's worth for some—of continued effort to polish what had worked in the past and to experiment with new techniques. I conclude that no matter what a college teacher's initial level of teaching success, continued effort and commitment is required to reach a distinguished level of effectiveness.

Where does the commitment come from? What motivates a teacher to develop the skills and apply the energy to go well beyond what is acceptable?

Several kinds of instructor motivation were notably absent from what my study collaborators described to me. No one spoke of being motivated to offer the best possible course they could simply out of a desire for a raise or a teaching award. Neither did anyone report the desire to enter the ranks of the tenured faculty as having a significant effect on motivation. As one woman put it, "I'd tell any new assistant professor here not to count on receiving tenure from their teaching alone. Sure, work to be the best teacher you can, but don't avoid doing whatever else is valued (usually publication or service) and hope great teaching ratings will cover up for your weaknesses." None of the individuals I interviewed cited external rewards of any kind—neither money, prestige, nor bigger offices—as play-

ing much of a role in motivating them to teach as well as they did.

What they did comment on were a variety of internal, often highly personal, satisfactions they received from teaching well. A few reported investing in the future of their discipline by using outstanding teaching to attract highly able and motivated students to major (and perhaps seek graduate study) in their department. Most simply reported finding it personally satisfying to design and deliver courses of outstanding quality. They had come to cherish their hours in front of a class of spellbound or animated students caught up in the instructor's love of the subject and virtuosity at inspiring that love in others. Or they had come to value the opportunity to work with students as individuals: to see some of them mature from dependent, uncertain pupils or angry, compulsively rebellious underachievers to self-confident and independent junior colleagues or to experience the warmth and intimacy of getting to know students well as persons and perhaps winning their trust enough to glimpse a few of their personal dreams and fears. The overwhelming majority of instructors I studied reported being motivated by personal satisfactions that continued to give meaning and pleasure to their life in the academy.

So why should graduate instructors or new assistant professors consider committing themselves to the lifetime enterprise of going well beyond minimal expectations as classroom teachers? I would suggest considering such a quest for the kinds of enduring personal satisfactions available from teaching at the highest level. Few college teachers endure the kinds of administrative frustrations and barriers to innovation that must drive many of the best secondary school teachers from the profession. (Public school teachers more often cite such administrative factors, not students, as the major source of their job dissatisfaction.) Most of us are relatively free to design the kinds of courses and to make the kinds of improvements that we deem best. Taking advantage of that freedom—one of my colleagues called college teaching one of the last bastions of individuality in America—can be extremely rewarding. However, teacher motivation to excel in the classroom, term in and term out, is ultimately a very personal thing. It is easier to describe specific techniques for becoming a better teacher than to offer a ready justification for doing so.

How Can Instructors Improve Their Teaching?

I suggest that the first step in improving one's teaching is making the commitment to do so. Commit-

ment alone is unlikely to have a maximum effect, however. You also need to have some specific models of effective teaching, especially of the psychology courses you will be designing over your career. Every campus has a number of outstanding teachers spread over a number of different departments. Students always know who such individuals are and will be happy to tell you whom to study. Seek out one or two such colleagues from other disciplines, and ask to observe a class or two and talk with them about their teaching. I predict you will get specific ideas on how to design and deliver your psychology courses, even if the individuals you contact teach far-removed subjects. Then do the same thing with a psychology colleague who teaches your same course or a similar one. Focus on the how and why of your colleague's methods rather than ask for a lot of explicit guidance on your own teaching. Ask yourself what you can borrow from each of these teaching models to integrate into your own personal style.

Lastly, become familiar with the published literature on effective teaching, especially McKeachie's *Teaching Tips* (1986) and the APA Division on College Teaching's journal, *Teaching of Psychology*, which is an excellent repository of articles on clever ways to enhance psychology instruction and on empirical studies of college teaching in general. Another excellent periodical is *The Teaching Professor*, a monthly newsletter. You might also consider joining APA's Division Two in addition to other divisions related to your professional interests. Being a Division Two member not only helps support a strong group advocating for better teaching of psychology in the country's colleges and high schools but also brings you a subscription to *Teaching of Psychology*. You can also consult the books and periodicals listed in the references to this module.

The last section of this article discusses several methods of getting evaluative feedback on your teaching. Student questionnaires (both the standard multiple-choice and some newer open-ended methods), videotape recordings, and consultations with another faculty member or teaching consultant are discussed there. In addition, the use of small end-of-class writing assignments to evaluate specific teaching methods is described. You may find some of these specific techniques useful.

None of these methods is sufficient to ensure your development into the best teacher you can be, however. For that to happen, you must also be open to your own inventiveness and spontaneity. Several of the exemplary teachers I interviewed reported regularly coming out of a class session with renewed

excitement for their subject and for teaching as a career, with a better understanding of the subject than when the class started. Perhaps the best teachers are like the best students in being open to new ideas and learning experiences, even when they are nominally the person in charge.

B. F. Skinner is reported to have once said something like "A teacher will eventually become effective if he or she will only pay attention to the reinforcement given by the students." Perhaps the late Professor Skinner was correct here in pointing up the importance of paying attention to what is happening in the classroom and being responsive to it.

SECTION II: TASKS FACING EVERY COLLEGE INSTRUCTOR

Designing a Course

Every spring I am assigned a new group of graduate instructors who will be teaching psychology courses for the first time the following year. During our first meeting, before summer scatters them hither and yon, I ask what they have thought about doing over the summer to get ready for their fall course. Typical responses deal with selecting a text, putting together a set of readings, or finding some clever demonstrations or videotapes that illustrate interesting psychological phenomena. Invariably, someone also mentions getting all the lectures written over the summer. With the exception of writing lectures, each of these activities can help prepare you to teach a course for the first time. (Until you have conducted a few classes, you will have little idea of what it is useful to write down beforehand.) This list of activities, however, omits the most important planning activity: setting objectives or thinking about what you want to accomplish.

Setting Objectives

The importance of setting educational objectives is mentioned so often in the teaching literature (for instance, see Mager, 1976) that many teachers take goals for granted. College instructors are especially likely to dismiss the importance of educational objectives (and the lesson plans public school teachers frequently write to accompany them), believing they are just one of the many nuisances that elementary and high school teachers must endure. Writing course objectives, especially in the behavioral language favored in schools of education in the past 20 years (for example, "Students will be able to describe accurately the various elements of the clas-

sical conditioning paradigm"), is pointless unless it involves a serious reflection on one's values for students in a course. What objectives for the introductory psychology course does one have to choose from, and which are most likely to be helpful in course planning?

Many instructors immediately think of *content* objectives for a survey course like introductory psychology. "I want students to master all the important concepts," for example. Given that the glossary of important terms in the textbook contains over 500 concepts, saying you want students to master all concepts is not likely to help you plan a course. (With 2,225 minutes in a typical 15-week semester, you would have roughly 4 minutes of class time per concept!) Selecting the individual concepts you believe to be most important is more likely to help you plan which chapters to cover in more detail than others.

No instructor can cover all the material in sufficient detail for students to master it. The first content objective to consider, therefore, is which chapters are important or complex enough to warrant more than one class meeting. For example, you may choose to spend several class sessions each on the initial chapters dealing with research methods and biological bases of behavior, but then you will have to spend less time later dealing with personality, social, or abnormal psychology. Once you have confronted the reality of how many classes you have to work with, you may have to decide to omit one or two chapters entirely. This is less likely with *Psychology: Themes and Variations, Briefer Version*, than with other, more encyclopedic textbooks, but you may still face such a painful decision.

It is unfortunate that so many college teachers confine their thinking about course objectives to topics (or chapters) they will or will not cover, usually based on the available time and their personal interest, because there are so many other important objectives to consider. For example, an instructor can aim to increase students' abilities to think critically about psychological research methods and findings by asking them to read and critique original research articles; to apply developmental and social learning principles to individual or social problems by designing optimal child-care facilities or behavior modification plans; or to appreciate the philosophical and historical foundation of psychology as an empirical science by reading such classic works as Darwin's *Expression of the Emotions in Man and Animals* (1872), James's *Varieties of Religious Experience* (1902), or Freud's *A General Introduction to Psychoanalysis* (1924) and writing papers showing

their similarity to modern research questions about human or animal behavior. Asking students to work on any of these assignments in small groups will also encourage them to work collaboratively and to learn by teaching others. The other modules in this resource package offer suggestions on how to help your students master content, but they also suggest ways to meet a variety of objectives.

Most instructors teaching introductory psychology find the amount of content that could be covered overwhelming. Traditional concepts remain important, and new findings are added each year. If you recognize at the outset that everything cannot be covered thoroughly in class and that students must be motivated to learn many (if not most) of the details on their own, it becomes much easier to plan a course that focuses on a broad group of higher-order objectives. Each exemplary instructor I studied aimed for a rich array of objectives. Whether teaching advanced courses for majors or service courses for the general student population, they chose to promote thinking, application, and evaluation more than a simple mastery of content. Given the relevance of psychology to the lives of the large number of students who each year pass through our introductory psychology courses, aiming for a broader range of objectives makes sense for everyone.

Constructing a Syllabus

The key to constructing an introductory psychology syllabus is similar to what is required to be a successful diplomatic negotiator: you must be able to trace off the ideal of what you would like with the reality of what is possible. Even the simplest course organization—simply going through the 16 chapters of the textbook in order—will create time conflicts. You will want to spend more time on one subject than another, you will get behind when what you plan does not fit the allotted class meetings or students will have many questions about a difficult topic, and every exam you decide to give will take away from time that could be used to cover new topics. A common lament I heard in my interviews with exemplary teachers is "So many interesting topics, so little time."

After you have thought about what you want your students to take away from your psychology course, begin constructing your syllabus by noting the limits imposed by your school calendar. Jot down the date (and day of the week, to make it easier to keep on track) of each class meeting on the left side of a piece of paper, and note school recesses, special convocations, and the like in the middle of the page.

Count the number of available class meetings, omitting the first and last sessions (more about these later). At most schools you will have about 45 sessions for a three-times-per-week course and about 30 for a twice-a-week course.

Next, think about the number and type of exams and the kinds (if any) of writing assignments, laboratory sessions, computer simulations, and films or videotapes you may want to use. Most instructors will schedule two or three major exams during the semester, and a final at the end. Any fewer puts too much reading on each exam (eight chapters each for a single mid-term and final), but any more takes too much time away from class. Many instructors opt for more frequent ten-minute quizzes at the beginning of class to help students keep up with their reading and periodic major examinations. Once you have decided on how many exams to include, pencil them in at regular intervals over the term. Some instructors prefer giving exams on Thursdays or Fridays to give them weekends for grading. Whenever you schedule exams, include an unscheduled class meeting before each exam as an expansion joint or a catch-up session. Any time not needed can also be used to review and integrate or to answer student questions. Some teachers also include a session or two at the end of the term for a systematic overview of major course topics or to make another attempt to teach topics that students have had difficulty with before. (I continue to be amazed at how difficult it is for some students to identify correctly the independent and dependent variables in studies and to remember the differences between classical and instrumental conditioning.)

Now comes the creative and, unfortunately, frustrating part. When you know how many class sessions you have between exams, your objectives can help you decide what you can cover in class. They can also motivate you to look for innovative ways to step out of the lecture/discussion rut so common in college classes. Your objectives can also help you decide when to schedule something.

For example, an instructor who believes science courses tend to overemphasize the results of studies may want to give students a sense of the process of asking theoretical questions and then designing an operational study to answer them. Because the first chapters of *Psychology: Themes and Variations, Briefer Version*, deal with biological processes that require considerable technical skill or equipment to ask up-to-date questions, the instructor decides to use Chapter 7 on memory for the research design exercise. A discussion session (perhaps using pairs of students or small work groups) is scheduled to design a study

that could be done on your campus to test some variation on the contemporary hypotheses about mood and memory discussed in the textbook. It will take an entire class period at the least (two 50-minute classes is more reasonable) to set up such an exercise and get students into the active learning mind-set. However valuable and enjoyable this exercise may be, spending class time in this way will surely mean that you have little time to cover the other topics in Chapter 7. An instructor who had not decided to pursue this higher-order objective beforehand would be unlikely to do things differently when Chapter 7 rolls around.

Another example deals with videotapes and films and other types of in-class demonstrations. There are many excellent programs and computer demonstrations for the introductory psychology course. Many of them are designed to run an entire 50-minute class session. Given the scarcity of class time, thinking of one's objectives for a class can help in deciding whether showing an entire film or videotape is justified. Remember, you can always show only part of it. Also, any classroom demonstration that lasts for more than five or ten minutes needs discussion to be sure students are processing the experience intellectually rather than simply watching it passively (or drifting off into fantasizing about one of the many topics more inherently interesting to them). Scheduling laboratories outside regular class time allows students to go into more detail, and it also saves precious class time. The general principle of scheduling class topics is clear: Knowing one's objectives beforehand helps conserve scarce time and make it more likely student learning is maximized.

Do not expect to find a schedule of topics, exams, and other activities that fits the available class sessions the first time you try to construct one. Pencils are the order of the day, because the schedule almost always requires adjustments. (A graduate instructor I once worked with seconded this suggestion: "If I use a pen, the tears I shed when I see how little time I have left for all the interesting topics will make the ink run.") Once you have settled on the time schedule, everything else about constructing your syllabus is easy.

Think of your syllabus as a prospectus for your course. Design it at the outset to engage students in the content and sell them on its interest and relevance. However, your syllabus is not only a repository of important information and a schedule of coming events, it is an ideal place to begin giving students subtle messages about what you expect of them as learners. The top of the syllabus is a good

place to tell students how to find your office and to list your office and home telephone numbers. (Including your home number makes it very convenient for the occasional student who needs to call you and also gives a powerful message that you are accessible to your students.) If you know them in advance, your office hours can also be listed there. Many instructors then follow with the listing of dates, topics, and assignments that we think of as constituting a syllabus.

But consider another option. I once interviewed an exceedingly effective instructor of introductory psychology whose classes were some of the most popular and sought after at her school. After discussing her approach to teaching for a while, she asked if I wanted to see her syllabus. "Well sure," I thought, not thinking much about it one way or the other. I had never seen a syllabus so carefully designed to begin teaching at the outset. It followed the administrative detail at the top with a listing of six key questions about human nature that I recognized would form the basis of her course in psychology, such as "Can anything of importance be learned about humans from studying them scientifically?" "Are humans motivated more by animallike aggressive and sexual drives or by higher intellectual and aesthetic motives?" "How much of a role does genetics play in human behavior?" and "How much of our thinking, learning, and problems in living are influenced by early social experience?" She followed these questions with a short and elegantly worded introduction to her course that showed how it would connect to other philosophical and scientific areas of study. She explained her rationale for beginning her syllabus in this way with "I want to start their wheels spinning and juices flowing right away."

I have since learned that some instructors begin their syllabi with a discussion of their objectives for their students. Others include a short segment on ways to take notes, study for exams, and write papers. Still others assemble review questions and study outlines for each exam. Whether you put such intellectually focused sections in your syllabus before or after the schedule of class sessions, do consider using the syllabus as an early opportunity for teaching.

Special Classes

After only a few semesters in the classroom, most college instructors notice certain predictable patterns over the course of a school term (see Mann et al., 1970, or Lowman, 1984, for more detail on these predictable patterns). Whether the semester or quarter system is used appears to make no differ-

ence. One empirical study of time trends in student morale and motivation (Mann et al., 1970) empirically documented these patterns, what the researchers called "The Natural History of the College Classroom." Three critical class meetings during every course—the first class, the last class, and the class early in the term just before the first exam or major graded assignment—deserve special attention.

The first class meeting is in some ways the most important in an entire semester. For example, in a recent study of 20 manuals written for teaching assistants at universities across the country, Virginia Mathie and I (Lowman & Mathie, 1993) found that the topic discussed most often (in 94% of the manuals) was the first class. Students usually show up (early, even) filled with a mixture of positive anticipation and anxiety, hoping the instructor and the instruction will be rewarding but also concerned about their own performance; about how well they will meet the challenges they face. Instructors, too, typically begin the first class with a little extra anxiety. Will the students be competent and really interested in learning the material, or will they just be focused on doing as little work as possible while protecting their GPA? I begin each new course remembering the warm feelings and familiarity I had with last semester's students and feeling a little afraid of starting over with a group of strangers. But I am also excited about the prospect of turning on a new group to the excitement of what we have learned about behavior from psychological research. The first class meeting is an emotional time for everyone.

During the first class, students form many initial impressions of you and the course, so take pains to have them see you accurately. To show them you are *organized*, bring a well-prepared syllabus and copies of all textbooks, coursepacks, and other materials they will need to purchase. To let them see how *enthusiastic* you are about your course and your teaching, plan a brief and stimulating overview of psychology and its relevance as a scientific discipline; in effect, give them a sample to whet their appetites. To leave little doubt that you are *accessible*, come early and stay late, chatting informally with students as they enter and giving them as many opportunities as possible to approach you. Lastly, to let them see you are *concerned* about them as individuals, learn their names.

Almost everything ever written about effective teaching stresses the importance of learning students' names early in a course. You only have to associate one name with each face (first name or last

name, as you prefer); second names come easily later on. The minimal relationship signified by knowing students' name makes them more willing to discuss in class, more motivated to work hard to please you, more likely to come to see you when they have concerns, and less likely to cheat on papers and exams. The only drawback to learning names is the effort required to do so.

How do teachers learn students' names, especially in large classes? Most use the standard introductory cards collected the first day of class, which often contain information other than the name (hometown, major, interests, and so on) to help us make associations with faces. (I have found that getting students' telephone numbers the first day of class also makes it easier to return calls later on in the semester.) Reading out the cards and trying to memorize the faces and names works for some instructors, but many are using current technology to help them. Some take Polaroid pictures of groups of four students and have them write their names on the back. Others have students turn in their introduction cards as they file past a video camera and say their name (slowly and distinctly or you will not be able to understand it later). I know of one team-taught psychology class in which the three instructors use two video cameras to learn the names of their class of 300 students. With more than 45 or 50 students, you will surely have to take pictures of some type and spend several hours practicing the names on your own.

Here is a technique I borrowed from a colleague I interviewed that works well in smaller classes (fewer than 50) and also gives a good illustration of some of the memory principles discussed in Chapter 7 of the textbook. Early in the first meeting, tell students you want everyone to learn everyone else's name and that you will begin today and continue practicing for a week or so until you all have learned them. Ask students to help you and one another by using the names out of class as often as you can, to practice them in a different context. Then have each student stand up and say his or her name (most use only the first name) and hometown slowly while scanning the room to make brief eye contact with everyone else in the class. Repeat the name to be sure you (and everyone else) heard and can pronounce it accurately. After the fifth student, stop and practice the whole set of five, explaining about short- and long-term memory. When rehearsing the names, call them in different orders. Ask students why they think you are using different orders as you practice; someone is likely to anticipate what we know about serial learning chains, giving you an opportunity to

preview some cognitive research as well as show students that you will be expecting them to think and discuss during the course. When you cannot remember a name (and you are sure to forget several), ask the class to help you out. After completing all the students, go over them again, correcting mistakes. Then ask if anyone would like to try naming all the students. If you wait a few seconds, you are likely to get a volunteer (students usually miss fewer names than I do on this review trial). At the end of the first class meeting, go over the names one additional time before students leave.

There are several advantages to this technique. One is that it takes the pressure off the instructor and makes the time go faster by involving students in the process. It also begins promoting relationships among students, which are likely to grow as the course progresses. You can also distribute (with individual students' permission, of course) a class roster listing names, local addresses, and telephone numbers to facilitate such group formation. This technique also offers a vehicle to begin showing students the active learning you expect of them and to lay the foundation for your later discussion of memory and retrieval.

Several important intellectual tasks can also be addressed in the first class. If you go over each major section of the syllabus (the objectives, dates of exams and paper assignments, and so on), students are more likely to read it and ask questions. Ending the class with a short overview will let everyone leave in the same positive emotional state in which they entered. Given the many things that can be accomplished during the first class meeting, I have never understood why so many college instructors persist in seeing the first class meeting as merely a time to collect name cards (or confirm a registration list), pass out the syllabus, and ask "Any questions?" Letting students leave the first class meeting early is a tremendous waste of a unique opportunity to lay the foundation for an effective course.

Too many instructors also fail to appreciate the importance of the last class meeting. Some attempt to catch up and rush through those last topics or chapters in a way that is unlikely to add much to students' learning. Some also fail to appreciate that students are much more likely to put the entire course into intellectual perspective if you use the last class to reprise some of the fundamental issues you covered at the beginning. You might focus a class discussion on questions like these: "So, after all we've covered, do you think psychology is a science? Why or why not?" Asking what stands out in students' memories (or what they learned that they

are most likely to tell someone from home) also works well. Spending time in this way helps bring intellectual closure to what will hopefully have been a stimulating if hurried survey of the diverse field of psychology. Ending with discussion also helps students terminate with you and one another emotionally. Mann et al. found that the last class meeting was typically a time of slower response to questions and quiet reflection for many students. It is an ending, and if the experience has been first-rate, there will be a bit of sadness in them (and in you) that it is over.

The final special class to be noted is the class just before the first graded work. Mann and his colleagues used a group development approach in their research on college classes. Their data clearly supported the notion that there is a sharp drop in group morale about a third or fourth of the way into the term; it has been reported in many kinds of groups (some call it group rebellion). From their perspective, this is the time when students realize the instructor is not just a benevolent parent figure but also an evaluator and that they must perform to receive your highest approval; in effect, the honeymoon is over. The good news is that this event in group development usually precedes a long period of effective work that is based on more realistic feelings about the teacher as less of an authority figure and more of a senior colleague. Mann and his colleagues even suggest that the rebellion is essential to this later period of independence. Whether you support this explanation of the phenomenon or not, do recognize that the drop in morale occurs in every class at about this time, just before the first exam. Teachers learn to recognize the reduction in student eye contact and their reluctance to discuss. Many handle this phase by planning that particular session to be especially engaging, so provocative students cannot give in to their anxiety about the exam and about your changing role. I believe that the morale drop cannot be avoided but that its negative effects can be attenuated by planning for it and knowing it will be short-lived.

Motivating and Evaluating Students

Motivation

Earlier I discussed the differing motivations that students bring to our classes. I want to make a few additional points here. One is that the best way to motivate students to work hard is to give them instruction of the highest order. I find it hard to justify an attitude I have heard from some faculty that they feel no responsibility to make the material interesting and see motivation as totally the student's

responsibility. To me, such an attitude is elitist if not mean-spirited.

The second point is that the more we emphasize external controls over students, the less likely they are to become motivated intrinsically (see Lowman, 1990). Do think about ways to promote a learning orientation and to assign ungraded work.

Finally, the most effective teachers evaluate students in such a way as to stimulate everyone, from the brilliant stars who usually do a fine job and relish challenging work to the inconsistent or marginal students who often seem to feel discouraged. Students' level and kind of academic motivation is ultimately their own responsibility, but it is something we teachers can influence to some degree. The ways we make assignments, construct, grade, and give feedback on exams and written work, and assign final course grades are some of the ways we influence student motivation.

Making Assignments

Reading and writing assignments should be cited in writing as well as orally in class. Ideally, the specific objectives for each assignment should be spelled out along with details about the highest level of mastery you expect. For example, in assigning Chapter 1 in the textbook, you might call students' attention to Tables 1.1 and 1.2, comparing theoretical orientations, and indicate that you want students to be able to apply them to many specific concepts during the course. Similarly, in assigning short written work, such as an evaluation of a clinical case description using the diagnostic material in Chapter 14, you might provide a written description of the complexity you expect in the best papers. One of the best ways to show students what you expect from assignments is to place on reserve several samples of previous students' work on similar assignments. The key pieces of advice in making assignments are these: Never worry about being too explicit. And never underestimate some students' ability to misunderstand or forget what you put in a syllabus or say in class.

Constructing Exams

There are no hard guidelines on which types of exams to use. Each has its advantages and disadvantages. Multiple-choice exams that tap higher-order thinking require time and skill to construct, the items must be studied empirically to ensure fairness, and they cannot be put together at the last minute. But they are very easy to grade. Fortunately, the test bank that accompanies *Psychology: Themes and Variations, Briefer Version*, provides an excellent array of

carefully constructed and evaluated multiple-choice items. Most items provided by publishers are notoriously bad, perhaps because most are written by novice graduate instructors. The professor who put together the test bank for this book double-checked each item for accuracy and difficulty and classified questions as primarily factual, conceptual, or integrative. But even with this high-quality assistance, carefully select each item you plan to use, making sure it fits the emphases you have given to each topic. You may also want to construct items yourself that reflect topics, illustrations, or studies you presented in class that are not covered in the textbook. You should also run item analyses on the pretested items to be sure they were keyed accurately and will not be confusing to your students.

A recent modification of multiple-choice questions showing a growing popularity is the "because" option," in which you invite students to write a brief note in the margin when any item is confusing or when they believe it important to tell you why they are selecting one particular option over another. Fewer than 25% of your students are likely to use this option, and comments are usually made about fewer than 10% of the items. But giving students this option helps relieve their frustration at having to force complex knowledge into a single multiple-choice answer. It may also alert you to a confusing or, worse still, a negatively discriminating item—an item that is more likely to be missed by the better students than the worse ones.

Short-answer (or identification) questions are a useful alternative to the popular multiple-choice questions. Because they are easy to construct, they are a good way to customize the test bank. Like multiple-choice questions, they can be *factual* (What was Gestalt psychology, and what happened to it?), *conceptual* (What are some major problems with psychoanalysis as a scientific theory?), or *application* (After receiving a serious rattlesnake bite on his summer vacation, a New York City man develops a phobic reaction to snakes and avoids Central Park and other grassy parks for fear of being bitten again; show how classical conditioning and instrumental conditioning can be used to describe the origins of his phobia). Short-answer questions have a lot of face validity, but because they are more time-consuming (and less reliable) to grade, many instructors ask only three or four such questions at the end of a multiple-choice exam. However, a few instructors use only short-answer items, even in the introductory course.

Essays are most commonly used on final exams for the purpose of asking students to show integra-

tive thinking over a large part of the course. An example is "Using any research evidence or theoretical concepts you wish, argue for the position that learning is a more important determinant of human behavior than biology (or vice versa)." What is most characteristic of essay questions is their breadth and the fact that there is no single correct answer to them. If in grading you find one of your essay questions does have a correct answer, it is more likely a good short-answer question; you might consider substituting another essay question next time. The objective of every essay question should be to get students to think independently, perhaps creatively. They are easy to prepare but even harder to grade objectively than short-answer questions. The differing tactics taken by students can make it difficult to formulate criteria for grading answers. Unfortunately, essay quality also tends to be heavily influenced by students' verbal talent and writing skill. Because every class contains some students who prefer multiple-choice items and others who prefer short-answer or essay questions, using a variety of items makes everyone equally happy (perhaps *unhappy* is a better word).

Grading Exams

How we grade exams sometimes reveals a lot about our implicit philosophy of evaluation. For example, if we give full credit (or "A" grades) for all work students complete (or on which they appear to have worked hard), we endorse a piecework philosophy. An "A" reflects completion, or mastery, of our objectives. In contrast, if we assume that students' grades will approximate a normal distribution, we assume our students are evenly distributed by academic ability and motivation. If we modify the grade we give on a late exam or paper, we assume it is perfectly acceptable to use a grade both as a measure of achievement and as a form of aversive control to gain compliance. In practice, many college teachers' methods of assigning grades is inconsistent with their educational beliefs. Before deciding how to grade your exams, consider these implicit models.

The shorter the question, the easier it is to grade. Multiple-choice exams are easily scored using scannable answer sheets at your school's computer center, but you can also grade them quickly by hand. Having students write the letter (or number) of the correct response to the left of the question will speed up your hand scoring. Some instructors grade multiple-choice items during the test administration to give students a preliminary reading on the performance. The best reason to use scannable an-

swer sheets is that the scoring is usually accompanied by statistics that help you evaluate each item's difficulty (carefully inspect each item missed by more than 50% of the class) and the degree to which it discriminates students in the upper and lower parts of the class distribution on total score (be suspicious of any item passed by less than 75% of the class or so that does not have a discrimination index over about .5).

Short-answer identification questions are best graded by writing out all the kinds of answers or answer parts you think students are likely to include and deciding how much credit you want to give for which points. If you do this, be open to adding points for new ways of handling the question as you read through the exams. Some students may think of excellent ways of approaching the question that had not occurred to you.

Essays offer the most grading problems. With these, one must usually make comparative judgments, perhaps by stacking papers in three or four piles. No matter how you grade essay answers, it is a good idea to read four or five before you put grades on any of them to give you an idea of the range of quality you are likely to encounter and to avoid reading too many (say ten or so) in one sitting.

A final suggestion is especially important when grading short-answer or essay exams and papers of any kind: *always read them without knowing the student's name*. Not only does blind grading help you be more objective—something that psychologists are particularly sensitive to—it also reassures students that their work and not their race, gender, or relationship with you is determining how their work is evaluated.

Giving Feedback on Exams

In the main, evaluation promotes learning by motivating students to work hard preparing for it, but written feedback on their success also plays a part. One way to help an exam teach students is to return it quickly, within two class meetings at the latest. Hand-scoring multiple-choice items for students electing to see immediately how they have done also accomplishes this goal.

Short written feedback can also be given on each exam. Comments such as "Interesting point, Shannon" or "Your first argument was very persuasive" not only let students know that you read their answers carefully but also offer you a way to reinforce the kind of thinking you want from students in the future. Diagnostic written feedback can be powerful in shaping future student behavior, both in terms of how students study and approach exam questions

and in terms of their motivation to please you by doing better next time.

Evaluating Written Work

The same considerations that apply to written feedback on exams apply to written work. Even if you do not provide detailed comments throughout students' papers, be sure to give them at least an overview of your reaction. You need not explicitly justify the grade you gave, but you should at least give students an idea of how they might improve the paper in a revision.

Many experienced instructors ask that papers be turned in two to three weeks from the end of the term so they can evaluate and return the papers in time for students to revise and resubmit them, if they wish. I have come to encourage revisions as a matter of course and have been very pleased with the results. By asking students to return the first version of their paper showing my comments, I can quickly see what they changed (or, as has happened a few times, if the student simply ran off a new copy from a computer file). Grades on revised papers are usually half a letter grade or so higher, although I have seen tremendous improvement in isolated cases. I count only the final grade, although some instructors average the two grades. Because much writing in graduate school and for publication involves multiple drafts, it is to students' advantage in the long run to get used to using another's comments to improve the next version of their papers.

Making comparative judgments about papers is, next to the time it takes to read and grade them, one of the most common reasons instructors give for not assigning more written work. Papers are less difficult to grade if you keep a log of evaluative criteria you are developing as you read them. Putting these ideas in writing makes it more likely that you will avoid "grading drift" and continue to grade each paper using a common set of guidelines. Most instructors find that setting a limit on how many papers they will read at one sitting (usually two to five) keeps their concentration fresh. Some report that timing themselves with a stopwatch keeps them focused on their evaluative reading and helps keep them from reading the same paragraph over and over or drifting off into daydreaming. Whatever specific methods you develop for evaluating written work, remain skeptical that your grading will be reliable and objective unless you work hard to keep it so. Also remember that your written feedback is more likely to reinforce students' learning orientation than a grade alone, which can promote a grading orientation.

Assigning Final Course Grades

Evaluation during a school term can help shape learning through its diagnostic and motivational effects. But at some time we must give the final course grade, an activity that is likely to have less formative effect on the student's future behavior. During a course, we can be most concerned about the effect of our behavior on a given student's likelihood of trying harder or becoming more independent in his or her attitude toward learning. But at the end, we may have few guidelines on how to assign final grades.

Many novice college instructors find it exceedingly difficult to give low grades ("C's" and "D's"); a few find it difficult to give any "A's." For either extreme attitude, the instructor's personal emotions are probably operating. We so identify with the students that we want them all to get the highest possible grade; or less commonly, we are so competitive with our peers that we do not want to incorrectly imply that our students did as well as we could. Either way, we are identifying too much with our students.

Although schools vary on the level of achievement signified by different letter grades, Milton et al. argue persuasively that far too much is made of college grades in our society. And yet they are a yardstick, however imperfect, of comparative achievement. To give everyone who completed the course requirements an "A" is to deny what were surely qualitative differences in their performance. Conversely, to decide beforehand what percentage of "A's," "B's," and so on will be given does not allow for an exceptional class. Also, if students know about these percentages beforehand, they may become destructively competitive and have lower morale.

Most of the exemplary instructors I studied took a more middle-of-the-road position on grading. As one put it, "I recognize that some students are simply more intellectually capable or more highly motivated than others. To raise a student's grade artificially is to take something away from the superior student." And yet we all encounter students whose performance appears to have been hindered by unusual circumstances during the term. None of us is Solomon, but here are some guidelines for defining different levels of achievement and minimizing the role of subjective judgments in giving final grades:

A = mastery at the highest level of attainment that can reasonably be expected

B = strong performance demonstrating a high level of attainment

C = a totally acceptable performance demonstrating an adequate level of attainment

D = a marginal level of performance between an acceptable level of attainment and one that is completely inadequate, which may not be sufficient as a foundation for advanced coursework in this field

F = performance that is clearly unacceptable and indicates that the student is not ready for courses that build on this one

Here are some additional suggestions:

- Ask each student earning below a "C" on any graded work to talk with you about what can be done differently next time. Most will readily indicate that they know why they did poorly (for example, they fell behind on their reading or did not study sufficiently).
- Recognize that, by their consistently irresponsible behavior, many capable students work hard to get "D's" or "F's." Give them what they have earned.
- Do not tell students at the beginning of a course that you will drop their lowest grade. But if the low score is an exception, give less weight to a single test that is much lower than a student's typical performance and elevate an extremely low "E" to a high "F" when you average grades.
- Round up to the next highest grade ("B" to "B+," "C+" to "B-") if a student is within a point or so. None of our measures is that precise; if the student has done a lot better at the end or shown exceptional participation in classroom discussion, you might choose to raise the grade another half or whole point.
- Never lower students' grades, if they are on the borderline, because the students have been irritating. If they have caused you considerable inconvenience, avoid giving them any extra points if you wish, but do not take anything away.
- If in doubt, be generous. We will not remember for more than a few days the grade we give a particular student, but some of them will remember a grade they thought was unfair for years.

Handling the Nitty-Gritty

Details of Class Organization

Lecturing

The college lecture has received much well-deserved criticism. A lifeless speech read from notes, with no interaction with students and little probability of active learning in students' heads, is a terrible thing

to witness—much less to endure as a student week after week. Most college lectures are not nearly so one-sided. At their best, they are magnificent. Actually, most college instructors use a combination of lecture and discussion.

Space does not permit a full discussion of the many considerations in designing and delivering first-rate lectures. Randolph Smith's "Instructor's Manual" contains a wealth of suggested lecture topics and demonstrations that can enrich your psychology lectures. See Lowman (1984) and McKeachie (1986) for some additional suggestions. Here are a few more:

- Begin with an engaging opening, and end with an integrative conclusion.
- Recognize that you can cover (and students can absorb), at most, four or five points in a given class. Fewer covered in depth is even better.
- Learn to work from minimal notes that list your major points and illustrations. Never write out a lecture completely.
- Stop at least two to three times during a class, usually at points of transition or when students' attention appears to be waning, to ask for questions or comments or to pose questions for short discussion.
- Enrich your presentation whenever possible with such props as video clips, slides, newspaper articles, research journals, and books.
- Remember that you must succeed as a public speaker first, so project your voice and move about in front of your class with confidence. Large classes, especially, benefit from moving halfway up the aisles a few times each class.

Leading Discussions

Class discussion can vary along a continuum from brief queries followed by three or four student comments to entire class sessions spent in small-group discussion. Most college discussion is briefer and is used to enrich lectures. Note that *recitation* is the term reserved for questions about factual information ("Sarah, what does the term CS stand for?"). In contrast, discussion queries have no (or few) correct answers ("What might be some drawbacks to the correlational research design used in this study?") and usually ask for subjective opinion or critical reasoning. Good discussion must begin with a reasonable query about which there could reasonably be differences of opinion.

Provocative video clips from local television news programs or current newspaper stories can often be

used to stimulate active student discussion about a number of psychology topics. But whatever is used to initiate the discussion, remember that it is more likely to be effective if students' personal attitudes or thinking are stimulated first.

It also helps to have conditioned your students to discuss when you ask them to. Try counting silently to 10 after you make your initial query. Repeat a shorter version of the query again as you lean against a table or wall (giving the nonverbal message that you can now wait all day) and begin your count again. You will rarely make it past 5 the second time. Also be sure to reinforce rather than punish student comments by emphasizing what is most reasonable about each one. Discussion is more unpredictable and requires more energy than lecturing, but even in small quantities it increases student involvement and active learning.

Using Cooperative Techniques

Cooperative (or collaborative) learning covers a rapidly growing set of techniques in which students work closely with one another (Johnson, 1991). In contrast to the competitive, individual techniques they are usually compared to, these approaches stress working toward common goals and helping one another learn. Cooperative techniques vary in complexity from the simple technique of stopping during class and asking students to discuss a question or difficult concept with a nearby student to the complex jigsaw technique, in which students are assigned different content to teach other students and meet with those teaching similar content beforehand to discuss how they are going to mesh their subjects.

Proponents of cooperative techniques report that students are more actively involved in learning and show greater achievement of higher-order objectives, presumably in part because of greater intrinsic motivation. However, even advocates report that evaluation is more difficult with group projects, especially with the phenomenon of the "free rider," one who does little work and relies on others' efforts. Although the more ambitious cooperative approaches require significant class reorganization, the simpler ones are used easily in traditional classes to enhance involvement and learning.

Team Teaching

The introductory psychology course lends itself to cooperation among departmental faculty with different speciality interests (such as clinical, experimental, developmental). Having two or three different instructors is enriching for students and

instructors alike. Unfortunately, team teaching can also be frustrating and morale-sapping for faculty and give students the feeling that no one person is really in charge.

Here are a few guidelines for conducting a team-taught psychology course:

- Even though sharing teaching responsibilities can save some time, expect it to take considerably more time to plan a course and to coordinate everything with your colleagues (especially exams and grades) than it did by yourself.
 - The greatest temptation is for the faculty not teaching a particular topic to slip into the habit of skipping class. Avoid this at all costs, because it significantly undercuts the coherence of the course. All instructors need to hear what others have said to integrate their comments and avoid needless repetition. Try making a few comments (or getting into small arguments with your colleagues) from time to time when you are not presenting. Such involvement will help motivate you to attend class and will model for students the kinds of theoretical and methodological debate that enlivens the field, as well as provide memorable entertainment for them.
 - As much as anything, recognize that students have a strong need for consistent and regular leadership. Do not attempt a team-taught course if you expect it to be a quick and dirty way to stretch instructional resources to cover more students. If the faculty team recognizes beforehand that they must all participate in major course decisions and be physically present during most classes, the team-taught course is more likely to be successful for everyone.
- Discussion will be more difficult but can still be used to increase students' involvement and allow them to respond to lecture points. Because students will not be able to hear one another's comments, instructors must always repeat them (not a bad idea when discussing in moderate-size classes too.)
 - Remember that it can take 10 to 15 minutes just to pass out a set of exams or a handout. Try leaving handouts on tables by the entering door and returning papers in alphabetical clusters, especially if you can enlist help from TAs or departmental secretary.
 - Move toward the back of the room several times a class to foster eye contact with students in the rear of the hall. Those at the front will not mind having you be more physically distant for a little while.
 - Recognize that if you will work to foster relationships with your students (learning names, coming early, staying late), your large class can seem warmer and more intimate to your students than others half the size.

Teaching the Large Class

Classes of over 100 students are usually considered large at most schools. Whether 50 or 250 are taught, however, certain special considerations may be useful.

- Avoid assigning a large class to a novice instructor. Give less-experienced faculty smaller classes, and save the large ones for seasoned faculty.
- Speaking skill is especially important. If your voice is not strong enough to easily carry to the back of the room (voice projection is more important than volume, incidentally), use amplification.
- Visually stimulating displays are especially needed. Blackboards are rarely sufficient. Consider using overhead projectors, 35mm slides, or computer-generated screens.

Organizing Teaching Assistants

TAs can be asked to play several roles in the introductory psychology class. They may be primarily exam and paper readers, audiovisual assistants in charge of hauling equipment to and from the class room and showing films, or laboratory section leaders. If made to feel a genuine part of an instructional team, the experience will be more rewarding to them, to the primary instructor(s), and to the undergraduates. If their duties are vague or they are seen as "teaching slaves," class morale and motivation for everyone (including the students) will suffer. As in team teaching, the ideal is for TAs to attend all class meetings (this is essential if they are to grade papers) and to become actively involved with students. In the best of situations, classes with TAs and team teaching are very similar.

Getting Feedback on Your Teaching

The key to using the feedback techniques in this section is to genuinely seek information from others (usually students) on how they have experienced your teaching. Not everyone will see it the same way, but a number of different views form a composite portrait that we assume has some validity.

The easiest way to get feedback on our teaching is to require "minute papers." Ask students at the end of occasional classes (in the last one or two minutes) to jot down answers to the following:

What concept (or event) in this class was most interesting to you?

What concept is still most confusing to you?

Doing this every week or so will give you many useful ideas for presenting some difficult concepts differently. Better to find out early that many students are unclear than waiting until you read exams.

Minute papers give quick, simple feedback that help shape ongoing performance. End-of-term student evaluations come when it is too late to do much for this class. But if specific questions are asked that are diagnostic, in addition to general and evaluative ones, they can aid greatly in shaping future teaching. There are several questionnaires in use around the country (The Educational Testing Service, for example, markets one) that students can use to evaluate classroom teaching; it is not appropriate here to compare their strengths and weaknesses. Actually, most of them are quite similar, and any list of reasonable questions you might think to ask students will probably work well. It is important, however, that the questions have face validity—that is, that they appear reasonable to students and instructors—and that specific as well as general questions are asked. Evaluations of the impact of student evaluations on teaching indicate that instructors who go over their students' ratings with someone else are more likely to improve in the future than those who simply go over them by themselves (McKeachie, 1986).

Whether you review your ratings with someone or not, examine the data in a self-critical and honest way and try to think of ways to use the information in the future, even if you do not always agree with your students' consensus. Although receiving critical student evaluations is not a pleasant experience, it can be a useful one. As your skills reach a high level, the glowing evaluations are sure to be affirming.

You might also consider using open-ended questions. For example, you might simply ask, "What are the best things about this course?" "What are the worst things . . . ?" "I would describe my instructor's teaching as . . .," or "This course could be improved by . . ." Questions like these are sometimes used by instructors in lieu of Likert scales and are used in addition to Likert items. Although open-ended questions do not provide data that can be compared with those from other faculty, their specificity makes them very diagnostic for individual faculty.

It is often true when reviewing student ratings,

watching yourself teach on videotape can be uncomfortable. Few things, however, can help improve your teaching as much as looking at a series of videotaped classes.

The key to using videotape to improve teaching is to be doing it for self-development, not as part of someone else's evaluation of your teaching, as with many kinds of performance. In addition, I recommend that you wait a day or two before watching a videotape of yourself teaching and then do so in at least two different ways. For example, watch it straight through the first time, noting your general reactions. Wait a few more days and watch it again, focusing on details or on segments that caught your attention the first time through (such as places when you thought you were unclear or particularly engaging or when student discussion did not go well). Watch more carefully this time, perhaps looking at five-minute segments, some more than once. The objective here is to look at fine details of your teaching, as a Martian might. A third session focusing on details might also be indicated, although most instructors find two hours sufficient. Above all else, commit yourself to analyze videotape feedback for three or four classes during a year. Such repeated use will desensitize you to any initial anxiety about being in front of a camera that may be present for the first ten minutes or so and help you learn how to use this common technology to improve your teaching. As is true with student ratings, spending an hour talking about your tape (and viewing selected portions) with a faculty development staff member or colleague can enhance your learning.

Conclusion

Part II has briefly treated several complex subjects related to college teaching and omitted others entirely. The aim has been to give an overview of the critical skills and attitudes related to effective teaching rather than to replace the more comprehensive books on the subject. As is true in our teaching, the presentation of information is never sufficient, however. What matters most is how motivational the information has been: how willing you now are to put in the effort, adopt a self-critical attitude, and relax and take a few chances in the classroom to put the specific skills to use. I hope you will be able to use some of what has been presented here to help you become an exemplary psychology instructor, one whose teaching will regularly be a source of inspiration for your students as well as a guide someday for other teachers.

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