

# 21 Teaching

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**Abstract:** Teaching is an important component of most academic clinicians' responsibilities, but it often receives the least attention during graduate training. This chapter describes basic and expert competencies underlying teaching at the both the undergraduate and graduate levels. The underlying premise of the chapter is that teaching competence is comprised of fundamental and advanced skills that can be learned, practiced, and mastered. The majority of the work that goes into teaching happens outside of the classroom, and starts with careful course planning. The skills and behaviors necessary for competent teaching—from classroom management to lesson planning and assessment—should be based on explicit educational objectives and goals. Expert teachers not only integrate pedagogy and content knowledge to implement strategies that are more sophisticated than those used by teachers with basic competence, they also incorporate more complex innovations and interventions into their teaching. Instructors at all levels of competence should include systematic reflection and assessment of the efficacy of their teaching in their normal repertoire of skills. As they gain experience and skill, teachers can take a more experimental approach to improving their instructional approach. By applying a scholarly approach to teaching, academic clinicians can more efficiently improve the quality of instruction based on the empirical evidence of learning outcomes. This chapter can be used as a reference for new teachers just beginning their careers, or by experienced teachers looking to improve their methods.

## 21.1 Overview

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Academic clinical psychologists have multiple roles to play professionally. They must produce meaningful research, engage in service, and, in many cases, teach. Each component of this set of responsibilities does not always get equal attention during training for many newly minted clinicians. However, all four areas of proficiency are integral to the well-rounded professional clinician's arsenal. This handbook addresses the gamut of professional competencies necessary for modern clinical psychologists; our chapter will address the particular standards and strategies needed to become a competent teacher of psychology.

Competency, in the context of teaching, is an amorphous concept. Some authors claim that a good teacher is one who has a lasting, positive, and significant effect on students' thoughts, behaviors, and values (Bain, 2004). Others argue that a good teacher is one whose unique configuration of personality characteristics and intellectual ability best lends itself to instruction (Lucas & Murray, 2002). Is a competent teacher a good teacher? To make such an assumption, one must equate *good* with *competent*, which falsely likens a subjective evaluation to a quantifiable set of skills and outcomes. Experienced teachers may employ widely divergent teaching methods and strategies, and each may vehemently assert that his or her way is the best and most effective. Nonetheless, there is a difference between the philosophical underpinnings of a methodological approach, and the quantitative merits of solid pedagogy. There is no single best way to teach well; there is, however, a solid foundation of

theoretical principles and empirical evidence, the understanding of which is necessary for every teacher to develop, in his or her own way, into a competent teacher (Lucas & Murray; McKeachie, 2002).

This chapter distinguishes between basic and expert competencies. Basic does not mean simple or easy to achieve; instead, basic competency is comprised of the fundamental skills every teacher should master as a matter of course. These skills and strategies are those necessary to begin on the developmental trajectory toward expert teaching competency. These pedagogical building blocks are necessary regardless of the subject matter being taught, and are applicable to many personal teaching styles. The standards of basic competency for psychology teachers described in this chapter are based on research and theory from the scholarship of teaching and learning. Teachers who have basic competencies should systematically reflect on their teaching; they should be purposeful in their use of specific methods, monitor learning outcomes, and adjust their approach to meet their particular objectives.

Expert competency is directly dependent on basic competency. Expert teachers integrate and generalize basic methods more fully to maximize their efficiency and effectiveness. An advanced technique is one that utilizes more sophisticated tools, or is applied to more complex situations. An expert teacher is committed to gaining a better understanding and integration of both his/her subject matter and the principles of teaching and learning. Expert teachers engage in more sophisticated analysis of their students' learning, and incorporate experimental interventions or teaching innovations into their courses.

The intended audience for this chapter is academic clinical psychologists or students who will be teaching at both the graduate and undergraduate levels. In addition to their standard clinical training and supervision duties, faculty are often called upon to teach core clinical classes at the graduate level (e.g., psychopathology) as well as courses within their particular areas of specialty. It is also common for clinical faculty to teach courses at the undergraduate level, ranging from introduction to psychology to abnormal psychology to statistics. For this reason, the information contained herein will emphasize aspects of teaching and learning that are equally relevant to any course level. Throughout the chapter, we will highlight the topics and applications that are more specifically applicable to one level over another.

In today's academe, there is a growing diversity in course styles and formats. In order to accommodate the needs of modern students, online courses, distance education, and hybrid styles are increasingly common. However, an in-depth examination of those variants is beyond the scope of this chapter (Duffy & Kirkley, 2004). Though we will address course style and format where appropriate, the primary focus of this chapter is on issues related to traditional "brick and mortar" classroom teaching. The skills and strategies that comprise the foundation of good pedagogy are applicable to any kind of course in most cases; nonetheless, the most parsimonious presentation of this information is as it pertains to the "default" classroom.

We trust that readers will use this chapter as a tool to aid in their own teaching. Accordingly, the chapter is organized to facilitate quick reference. Thus, within the broadest headings of basic and expert competencies, we have further divided the information into three discrete subsections. The bulk of the work required to teach happens before the instructor ever steps foot in the classroom; therefore, the first section details *preparation that takes place outside of the classroom*. The second section of both competency categories pertains to *skills and strategies for use in the classroom*. Finally, we present the *tools and methods for teaching assessment and professional development* last in both categories. This section addresses the necessity of reflective and systematic analysis of teaching and learning, and presents the ways teachers incorporate

teaching into their personal career paths. Within these subsections, we provide theoretical background for the principles, followed by empirical research to illustrate its utility in teaching. Where applicable, examples of practical applications for each principle are presented. We intend for this structure to reinforce our commitment to making this chapter useful and convenient as a reference for professional psychologists.

## 21.2 Basic Competencies

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Many graduate programs give short shrift to the teaching aspect of the graduates' overall training as academic psychologists (Boice, 1992; Gibson, 1992; Lucas & Murray, 2002; Vesilind, 2000). For this reason, some doctoral-level clinicians begin their academic careers with little else than a rudimentary understanding of what to do once they find themselves in a teaching role. As a result, new instructors quite often default to replicating the way they were taught, and equate good content with good teaching (Boice; Lucas & Murray). This produces a cyclical pattern of the reiteration of unintentional teaching methods, to the point that those methods become tradition. There is a sense that teaching, as part of the triumvirate of academic roles including research and service, is a self-directed and often burdensome endeavor, which derives more from art than science (Boice; Lucas & Murray). However, this perspective is changing in academia, as a new generation of researchers begins to apply the same kind of effort and empiricism toward their teaching as has been given to their specialties. The result of this shift is the increasingly widespread attitude that teaching can be done in accordance with the principles governing human behavior, cognition, and emotions that psychologists have been investigating for a century. It is in that spirit that this chapter synthesizes theory with research and practical applications of teaching principles. In the following sections, we suggest the fundamental skills that teachers in psychology need to master to achieve basic competency. We will present this information in the recommended order of operation, starting with the first steps in course planning.

### 21.2.1 Outside the Classroom

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The majority of the work required for teaching happens outside of the classroom. Before an instructor ever meets a student, he or she must have put careful thought and purpose into planning and designing the course. Course planning begins by considering the big picture. Some of the essential decisions involved in course planning may appear to be self-evident. However, because they are so obvious, inexperienced teachers sometimes overlook key elements required to put together a course (e.g., visiting the classroom early to account for specific physical and technological logistics) (Lucas & Murray, 2002). The first portion of this section describes the first steps a teacher must take when beginning a new course. The course planning process should begin about 3 months before the class begins (McKeachie, 2002).

#### 21.2.1.1 Course Planning

Academic clinicians are often called upon to teach both graduate and undergraduate courses. These courses are sometimes established parts of a department's curriculum, while at other

times, they may be new. The first order of business when planning a new course is to determine about what the course will be. This is one of those decisions that seems patently obvious; however, neglecting this step can derail many aspects of the rest of the planning. By explicating the precise subject matter of the course, the instructor focuses his or her attention on what is important and necessary to include. For example, a research methods course may or may not incorporate instruction about the use and interpretation of inferential statistics. If the course is an existing part of a department's curriculum, the new instructor should collect syllabi and course materials from those who previously taught the course (Lucas & Murray, 2002).

Such information is not prescriptive; however, in most cases, the teacher is not bound to replicate the course exactly. Nevertheless, it behooves the new teacher of an existing course to be aware of the role the course plays in the department and the school's overarching objectives (Lucas & Murray, 2002).

Once the specific topic of the course has been identified, the instructor should elucidate his or her general instructional goals and learning objectives for the course. Instructional goals are broad, global statements of the purpose of the course, from the teacher's perspective (Lucas & Murray, 2002). These objectives summarize what the teacher hopes to accomplish with the course. For example, an instructional goal for an undergraduate course may be for students to gain an expansive and general understanding of the variety of areas of research and theory included in social psychology, or, at the graduate level, for students to learn the range of treatments available for different types of anxiety in children. General instructional goals pertain to content knowledge, whereas learning objectives are more specific, action-oriented skills (Lucas & Murray; McKeachie, 2002). Examples of learning objectives include improving critical thinking, increasing synthesis of disparate ideas, and enhancing analytical writing skills related to the course topic. These objectives are conceptualized from the students' perspective as a statement of what they should be able to do once they complete the course. These outcomes are sometimes referred to as performance- or competency-based learning (Lucas & Murray; McKeachie). Learning objectives should be relevant to students' development outside of the specific content area covered by a single course. Vesilind (2000) suggests categorizing desired outcomes into concepts, skills, processes, or attitudes when planning learning objectives.

Instructors should conceptualize learning objectives in terms of achieving different levels of knowledge (Lucas & Murray, 2002). Taxonomies of learning describe different types of knowledge and understanding toward which teachers can strive, which then inform decisions about how to approach instruction. Bloom, Engelhart, Furst, Hill, & Krathwohl's (1956) taxonomy of educational objectives is the seminal classification system used by educators. Over the years, other scholars have revised and updated Bloom et al.'s original taxonomy, and many new frameworks have been proposed (Anderson & Krathwohl, 2001; Marzano & Kendall, 2007); however, the basic premise remains unchanged. The taxonomy classifies and hierarchically arranges different levels of learning. At the lowest levels are the simplest, most superficial types of learning (e.g., memorization of jargon and facts). Higher levels build upon the lower ones and involve more complex and sophisticated types of learning (e.g., procedural knowledge and applications).

Anderson and Krathwohl (2001) have updated Bloom et al.'s (1956) classic taxonomy to form a model with two dimensions, each with multiple levels. The first dimension consists of the original, cumulative categories of knowledge. Along this dimension, the first level is factual knowledge, which is comprised of basic information and simple definitions of a particular discipline, which allows students to solve simple problems and use terminology properly. The second level contains conceptual knowledge, which manifests in a deeper understanding of the

relationship between elements, including theoretical and structural explanations for more generalized topics. The third level is procedural knowledge, which enables students to apply techniques and algorithms to practical examples, including knowing when to use different procedures or methods. The last level is metacognitive knowledge, which is expressed as “thinking about thinking,” that is, knowing not only the content of an area, but how one goes about getting and using that knowledge. Anderson and Krathwohl’s second dimension catalogues the cognitive processes possible within the different learning objectives and is also structured hierarchically. The simplest process is remembering. Next is understanding, followed by application. Beyond that is analysis, then evaluation, and finally, the most complex process is creation.

Whichever taxonomical organization of learning objectives an instructor chooses to utilize, it is important to match the design of the course to the desired learning goals. Each type of learning described in such taxonomies is suited to different course components (e.g., discussion, writing assignments, etc.). Given prevalence of lecture-based courses at the undergraduate level, it is easy for new teachers to concentrate their efforts on this approach to classroom instruction (Boice, 1992; Lucas & Murray, 2002). Indeed, good lecturing requires a great deal of skill and preparation, and can be useful for presenting factual material, stimulating interest in topics, summarizing disparate sources, and explaining basic terms and definitions (Zakrajsek, 1998). Though lecturing is an efficient way to deliver large amounts of information to large audiences, it is not necessarily the most conducive to learning at the uppermost levels of the taxonomy (Vesilind, 2000). Other course components can be used to achieve these objectives. In-class activities, such as problem-solving exercises or demonstrations, require students to assimilate and apply knowledge to novel situations, using factual, conceptual, and procedural knowledge (Anderson & Krathwohl, 2001). For example, classroom discussion of reading assignments requires students to read ahead and think about the topic more deeply than they would if the students were not going to have to ask or answer questions about the assignments in class. This type of skill requires both factual and conceptual knowledge, and involves remembering, understanding, and applying recently acquired information (Anderson & Krathwohl). Depending on the objective of the discussion, students may also incorporate analysis and evaluation. Discussions are particularly useful for connecting personal experiences to course content, explaining and evaluating opinions and positions, and solve problems (Kramer & Horn, 1996).

As more empirical evidence becomes available about the benefits of matching teaching methods to desired learning outcomes, teaching styles are shifting away from the “sage on the stage” approach toward learner-centered methods in which the student assumes some responsibility for structuring the class content (Messino, Gaither, Bott, & Ritchey, 2007; Miserandino, 1999). Learner-centered pedagogy emphasizes the student’s needs, experiences, and preferences as they pertain to motivation and knowledge structures (Wisher, 2004). The American Psychological Association (APA) has published a list of principles to guide learner-centered teaching (APA, 1993). Included in these principles are ways to move beyond basic didactic teaching methods and incorporate varied, active, and higher-level techniques to improve students’ ability to construct and share knowledge while engaging in social interactions with their peers and teachers (Wisher). Teachers are less focused on choosing one style or method over another in favor of combining approaches to achieve multiple learning objectives simultaneously. An example of this type of hybridization is a large introductory-level course in which the instructor includes lecturing, small group activities, discussion, practicing application problems, and writing – utilizing some or all of those methods within the same class period.

This diversification requires students to process the information they received in class on several different taxonomical levels. This approach to teaching is sometimes referred to as “guide on the side,” in contrast to “talk and chalk” lecturing (Lucas & Murray, 2002; Messino et al.). Instructors should make decisions about what kinds of components they want to include based on both their instructional goals and their learning objectives for the course (McKeachie, 2002). Furthermore, these should dovetail with the department and the institution’s goals and objectives; besides asking colleagues and administrators, a good place to look for this information is in the school or department’s mission statements (Lucas & Murray).

*Syllabus Planning.* Once the instructor has made the major decisions about the structure and objectives of the course, the next order of business is developing the syllabus. The syllabus serves several different purposes and can itself be a useful course planning tool (Appleby, 1999). First, the syllabus is a statement of all the basic information about a course, from where and when it meets to its objectives and goals, required materials, and course components and policies (McKeachie, 2002). As such, the syllabus is the first exposure students have to the instructor’s pedagogical philosophy, personality, and style (Appleby). The syllabus should serve as a centralized source of answers to any major questions (i.e., an FAQ) students might have about the course (Lucas & Murray, 2002). Furthermore, the act of delineating all the course policies related to issues like absences, grade disputes, late assignments, and academic dishonesty requires the teacher to have thought through the reasoning behind and enforcement of those policies ahead of time (Lucas & Murray; McKeachie). Planning ahead for questions and problems ensures that policy decisions and consequences are consistent and fair, which is less likely if decisions are made on the spot or are influenced by the teacher’s feelings toward particular students (Whitley, Perkins, Balogh, Keith-Spiegel, & Wittig, 2004). The instructor should ensure that listed policies are consistent with institution-wide and departmental policies. Ultimately, the syllabus can be viewed as a contract between the students and the instructor, explaining what is expected and required of both parties, and serving as official documentation of rules and regulations (Appleby; Lucas & Murray; McKeachie; Whitley et al., 2004). The syllabi from various courses represent the teacher’s growth and professional development over time as well, which is useful for both the teacher’s personal reflection and departmental oversight (Appleby).

Another important aspect of the syllabus is the class schedule. Writing out the schedule of topics and assignments on the syllabus forces the instructors to quantify their instructional goals in the context of time constraints for the semester (McKeachie, 2002). Purposeful scheduling requires that the teacher thinks critically about how much time to spend on each topic. The course schedule directly influences how much time the students and teacher should expect to spend on the course. A general rule is that students should plan to spend 1 or 2 h studying outside of class for every hour spent in class (McKeachie). This apportioning also allows an instructor to estimate realistically how much material he or she will be able to cover and evaluate in the time available. New teachers may inadvertently assign more reading than is reasonable to complete in the given time frame, which may necessitate either postponing coverage of the excess material to the next class meeting or disregarding it entirely. This practice can be very stressful for both students and teachers, especially if it affects the schedule for the remainder of the course (McKeachie). Teachers should include a disclaimer that the schedule may change, just in case (Lucas & Murray, 2002; Whitley, et al., 2004). Keeping this caution in mind, the teacher can think of the syllabus as the blueprint for a course, and use it to guide subsequent planning.

*Textbook Selection.* Preparation of a syllabus also necessitates selection of the text or other reading materials for the course. Choosing a textbook can be a daunting process, because there

are so many factors to consider. As textbooks proliferate, and publishing companies' sales representatives get pushy, it can be tempting to pick a text for arbitrary reasons (McKeachie, 2002). The text for a course should match the students' abilities and the instructional goals for the class. Rather than skimming through whole books superficially, instructors should choose two chapters to read closely: one in the teacher's area of expertise, and the other over a less familiar topic. This strategy allows the teacher to evaluate and compare the difficulty level, comprehensiveness, inherent interest, and educational objective levels the book achieves (McKeachie). One way to capitalize on the increasingly competitive publisher representatives' advances is to request the ancillary materials that come with the sample textbooks they are pushing. Accessories often include comprehensive instructor's resource manuals, premade lecture slides, test-item books or software, DVDs with collected video clips, and access to feature-packed online textbook companion Web sites. Even if the teacher does not choose that particular text, those materials are valuable (and usually free) accessories for lesson planning. Many teachers choose instead to assemble their own material from original sources (e.g., journal articles) or create their own course packet, particularly for upper-level undergraduate or graduate-level courses. Collecting an original set of readings is a good way to tailor class materials to specific needs; however, this is a time- and work-intensive process, because then the responsibility for synthesis and organization is placed entirely on the teacher's shoulders (McKeachie).

*Technology Decisions.* Traditionally, teachers had few choices when it came to technology. Where classrooms used to have overhead projectors, there are now fully integrated audio/visual presentation systems. Where grades used to be recorded in paper grade books, there are now institutionally supplied, network-hosted classroom management systems (e.g., BlackBoard). The newest trends include things like podcasting, asynchronous online discussions, usage-tracking statistics, and automatically administered, graded, and recorded exams. It is easy for teachers to be both seduced and overwhelmed by the technological options available. However, technological advances are best seen as tools to increase efficiency and aid in achieving instructional objectives, rather than toys to be used for their own sake (Sargent Mester, 2008). Teachers who are adding new technology to their courses might be afraid of inevitable technological difficulties, loss of control over students, and inability to achieve the same objectives they can using more traditional methods (Brink, 2004). Brink suggests that if teachers are willing to put time into learning how systems work, talking with colleagues about their experiences incorporating new tools, and accepting the inevitability of setbacks in the natural course of things, they can harness amazing power from new classroom technology. Brink also suggests that it can be fun to do so, as long as the teacher goes in with a positive attitude.

As with any other course components, different technologies are appropriate for different kinds of learning and instructional goals. For example, presentation software (i.e., Microsoft's PowerPoint) can add much to a class when used to augment what the instructor is saying (Sargent Mester, 2008). However, the excitement of possibilities raised by presentation software sometimes leads instructors to overdo their visual aid. As a rule, simplicity and brevity are the watchwords for slide content. A picture can stand in for a lengthy explanation, and key words or short bullet points may highlight important parts of the lesson (Vesilind, 2000). However, students are easily overwhelmed, either by trying to scribble down every word on a slide, or by overstimulation due to superfluous bells and whistles (Sargent Mester). Instructors should not only be able to operate their classroom technology and software properly, they should also familiarize themselves with the tips and tricks of good presentations before they become too invested in implementing technology into their courses (Brink, 2004; Vesilind). Oftentimes,

schools offer courses to faculty and staff, for free or at reduced rates, to learn how to use a wide variety of common software applications such as PowerPoint.

*Course Logistics.* Size of the enrollment and the venue are two physical features of classes that have a major impact on the manifestations of course goals and objectives. Class size is important because some course components and instructional strategies depend on the instructor's ability to reasonably manage the workload. For example, introductory classes with large enrollments often use multiple choice or other objective testing formats so that students can record their answers on bubble sheets, which are then machine graded. In most cases, instructors would not be able to grade subjective tests (e.g., essay tests) for large groups of students because of the time required to do so. Another example of a size-dependent course component is class discussion. In a large class, discussion meant to include the whole class leaves most students sitting silently while a few individuals dominate the discussion. A smaller class size allows more chances for students to contribute to discussion and lessens their ability to blend into the background and remain anonymous.

Research on the effect of class size on learning suggests that instructors' and students' emotional reactions to large classes are not supported by empirical evidence of learning outcomes (Hilton, 1999; Jenkins, 1991). Teachers, in particular, tend to have a negative response to the idea of large courses, though for meeting traditional, didactic course goals, large classes are very effective. Students, on the other hand, tend to feel more positive about large courses, especially in lower-level survey courses (Jenkins). In large-enrollment courses, the quality of instruction can have exponentially greater ramifications than in smaller, more casual classes. The sheer number of students can compound the negative consequences of poor preparation, ineffective methods, unsatisfactory materials, and unsophisticated testing methods. Conversely, large classes allow the few, highly skilled instructors in a department to influence more students (Jenkins). New instructors should be warned that good preparation and organization for teaching large courses is more critical than they might anticipate, and they should expect it to take a lot of time (Hilton).

*Planning for the Time Commitment.* Multiple sources recount the tendency for new academicians to become consumed with teaching, at the expense of their other departmental and scholarly responsibilities (Boice, 1992; Gibson, 1992; King, 2004; Lucas & Murray, 2002). The demands of teaching increase as class sizes grow and teachers add more courses to their plate. This overbalancing of teaching versus other work risks early burnout, and can stall academics' careers as they take time away from research and service to teach (King). In order to avoid teaching overload, instructors should make an effort to connect with their colleagues, turn down offers for new obligations when possible, and protect personal and writing time. One way for new teachers to manage their teaching load is to audit the time they spend during the workday. It might surprise a new instructor how much time he or she actually spends preparing lesson plans or grading assignments, and knowledge of the problem is the first step to solving it (Boice; King). Boice suggests spending 2 h in preparation for every hour of class.

Amount of time the instructor spends on a class varies based on several different facets of the course. The instructor's teaching responsibilities include course planning, lesson planning (including finding and reading materials to incorporate into class), the time actually spent in class, grading tests and assignments, and time spent with students outside of class (i.e., office hours or individual conferences, answering e-mails, etc.). There are hidden time-consumers within each of those categories as well. For example, in addition to the actual time it takes to evaluate each student's work, grading assignments also includes the time it takes to formulate

the grading rubric, configure the grade book (whether using an online system such as BlackBoard or making one using a spreadsheet program), and enter the grades. One way instructors can reduce this time commitment is to have students assume some responsibility for their own assessment. This can take the form of peer grading, peer discussion leaders, or peer forum moderators, among other methods. Any task that the instructor can delegate to students has the potential to be an additional learning opportunity, especially concerning non-content-related skills such as critical thinking and constructive criticism, while also lessening the time burden for the instructor. Because it is easy to be mired in the minutiae of planning and administrative tasks, the teacher should begin by deciding how much time he or she can afford to spend on teaching-related work and tailor the course to meet those projections, so teaching does not consume more time than it truly requires (King, 2004).

*Lesson Planning.* The final step of preparation that happens outside of the classroom is lesson planning. Because class time is the focus of teaching from the students' perspective, it might seem as though lesson planning should happen sooner in the process, or be prioritized higher than some of the previous steps described above. However, lesson planning is the culmination of all the preceding decisions. The learning goals, instructional objectives, course policies, technology use, logistics of the course, schedule, and time considerations all shape how class time is spent. Instructors' use of class time should also be guided by a set of principles of motivation and learning. Many teachers employ methods or techniques that work, but much of the time, those methods are arrived at via trial and error. A haphazard approach is inefficient though. Rather, it makes sense to draw on principles of active learning and motivation when choosing instructional methods. The current zeitgeist in higher education touts the benefits of active learning (Miserandino, 1999). In contrast to passive learning in which the instructor collects, organizes, and presents the content to the students, who listen and memorize the material, active learning approaches transform the classroom into a learning environment that allows students to engage with course content through problem-solving exercises, informal small groups, demonstrations and simulations, and other activities, with the focus on application (Gibson, 1992; Johnson, Johnson, & Smith, 1991). Active learning, sometimes called "discovery learning," allows students to reflect, evaluate, synthesize, and communicate information with their classmates, because the student is responsible for being intrinsically interested in and actively participating in structuring the content (Leonard, 2002; Machmer & Crawford, 2007). Students who are actively engaged with the material have to process it more deeply than those who are merely listening, and the instructor is not the sole source of information (Leonard).

One common active learning method is having students work in small groups within the class, discussing questions or solving problems. When teachers split their classes into small groups, they limit the time students are receiving direct instruction from the teacher. However, active learning techniques and strategies that refocus or increase students' attention and interest are a valuable antidote to passivity. Another useful active learning technique is the inclusion of demonstrations in class. Demonstrations serve to break up class time, and the change in pace allows students to refocus their attention and increase their interest (Bernstein, 1999). Some demonstrations may require elaborate materials and setup, and could take the entire period. Others may be quick interludes that take mere minutes, and yet serve as valuable illustrations and examples.

Just as it is useful to incorporate principles of active learning, so too should instructors consider the factors that motivate improved student performance. The expectancy-value theory

of motivation, for example, explains students' efforts from a social-cognitive perspective (Snowman & Biehler, 2002). According to this theory, individuals are motivated to continue doing something in which they have a reasonable expectation for success, and when they know the value of the task to their personal goals. Both conditions are necessary for students to continue to be motivated to complete a task (McKeachie, 2002). Instructors can take advantage of this system merely by being transparent with students about the purpose of assignments and the relevance to the overall course goals (Boice, 1992). Motivation also encompasses students' choice, effort, and persistence (McKeachie). Thus, when students feel as if they have some control over their grade, they are more motivated to comply with course requirements (Burke, 2008). Instructors can use this tendency to increase students' compliance with expectations. For example, Burke recounts a way he improved attendance in an undergraduate course from 70% to 90%. He told the students that those who missed fewer than five classes over the semester did not have to take a cumulative final. Conversely, those who missed five or more classes had to take *and pass* the cumulative final in order to pass the class. He contends that students felt like they had the power to choose to not take the final through their behavior, and that motivated them to attend class consistently (Burke).

*Teaching Assistant Management.* In schools with graduate programs, graduate teaching assistants (TAs) can be immensely helpful in increasing efficiency by handling administrative tasks associated with the course, such as grading objective assignments, entering grades, holding office hours, and responding to e-mail inquiries. Although TAs can be helpful, there are many elements involved in TA management that must be considered. In general, TAs learn how to fulfill their responsibilities through direct experience, by observing the supervising instructor, and via mentorship (Komarrajou, 2008). Some graduate programs leave TAs to learn by trial and error, but if an instructor institutes an apprenticeship model instead, not only do TAs build more confidence and retain enjoyment of teaching, but they also become more successful teachers in the future (Komarrajou). For example, TAs must know all course policies and objectives, so the instructor might include the TA in elements of course planning. This enables the instructor and the TA to present a united and coordinated front, so that students do not receive mixed messages or attempt to take advantage of inconsistent information. Furthermore, it is important that the instructor endows the TA with the appropriate amount of authority, so that students respect and trust the TA with their grades.

Communication of feedback and support for the TA is critical as well (Komarrajou, 2008). In this context, support means two things. First, the instructor should make an effort to be a conscientious mentor to the TA by setting a good example of professional behavior, and being transparent about the reasoning behind decisions and strategies. For example, an instructor might copy the TA on an e-mail response to an upset student, as a way to model an appropriate way of handling provocative or troublesome situations. Doing so not only allows the TA to be part of the official documentation of the interchange, but also provides a template for the TA to use for similar situations in the future. Second, whenever possible, instructors should support the TA's decisions. This condition is predicated on the TA being fully informed of the instructor's standards and preferences. When an instructor overrules an assistant's decision, the instructor risks stripping the TA of his or her authority; it communicates that the students do not need to take the TA seriously. This risk is why it is so important for the TA and the instructor to be clear about the course policies, consequences, procedures, and priorities from the very beginning.

### 21.2.2 In the Classroom

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Once planning and preparation are finished, the instructor is ready to step into the classroom. Common wisdom suggests that the earliest interactions between the teacher and the students shape much of what follows throughout the semester. Indeed, many writings emphasize that the first day of class is the most important day for the teacher to establish his or her role as the authority, the tone of the class, his or her professional boundaries, and approach to teaching (Henslee, Burgess, & Buskist, 2006; Perlman & McCann, 2004; Vesilind, 2000).

Self-presentation should reflect the tone the teacher desires for the class. Young instructors should be especially mindful of this because their age may not easily distinguish them from their students. Depending on the teacher's personality and style, he or she may promote a casual or more formal atmosphere for the class, which is conveyed in part through the teacher's movement around the room, use of humor, manner of presenting course policies, and adherence to the schedule. If the instructor makes a point of being sensitive to impropriety, it will reduce the likelihood of inappropriate interactions in the classroom and foster comfortable discussion. For example, one way the tone of the class manifests might be students' inclusion of slang or expletives in discussion with the teacher or other students. Some instructors may not personally mind if students use such language in class; however, it is important to consider the opinions and preferences of the other students who may be alienated by some words. In most cases, less experienced teachers should err on the side of conservatism when it comes to tone.

It can be tempting on the first day of class to merely distribute the syllabus and then adjourn; however, that strategy might communicate to students that class time is not particularly structured or important (Perlman & McCann, 2004). McKeachie (2002) recommends that the first day includes introductions and presentation of the syllabus, but also that the instructor begins covering content and keeps the class the full time period. Henslee et al. (2006) report that students, on the other hand, do not appreciate delving straight into content unless the course has been clearly and thoroughly introduced first. One of the best ways to convey authority and competence is to be forthright with students about the reasoning behind the design of the course and use of different course components. Especially on the first day, transparency about class policy and pedagogical decisions communicates that the teacher respects the students and intends to treat them as adults.

Norms of behavior in the classroom vary by instructor and course. Students in small seminar courses may sit with their desks in a circle and speak without waiting for the instructor to call on them. Students in a large introductory-level course may keep their headphones on or have a crossword on their desk because they are invisible to the instructor. One instructor may have students respond to each other in discussion, whereas another instructor may ask all the questions and then solicit answers from the students. These kinds of differences are all incorporated into the general scripts students know for how to behave in college classes, and it is the instructor's responsibility to convey what types of classroom behaviors are appropriate for the course. Some of these decisions will be influenced by the physical space of the classroom (e.g., if the room has fixed or moveable seating), and others will be determined by the instructional goals for the course (e.g., if one goal is to improve students' critical thinking, both asking and answering their own questions would be useful).

It is important for the instructor to clearly communicate the expected norms of behavior (Perlman & McCann, 2004; Vesilind, 2000). For example, there will inevitably be students

surfing the Internet instead of taking notes on their laptop computers, sending text messages to friends, sleeping, chatting, and doing any variety of nonclass-related activities. Policies regarding these issues can run the gamut from strict prohibitions of these distractions to a more laissez-faire attitude toward such behaviors. In either case, instructors should decide what kinds of behaviors they care about and why, and state the policy and consequences for these actions in the syllabus. For example, one of us (B.C.J.) has a policy of answering any cell phones that ring during class, which has resulted in conversations between the instructor and grandmothers, bosses, and girlfriends, in front of the entire class. This policy serves as a humorous but effective motivator for students to set cell phones to silent mode before class starts. The critical point here is that competent classroom management involves premeditated policies that are applied consistently and are commensurate with overarching instructional objectives and learning goals.

### 21.2.2.1 Relating to Students

Teaching is a skill that can be practiced and improved, and which benefits from research and reflection, but the personal qualities of the teacher cannot be separated from how he or she teaches. Interestingly, students and teachers differ somewhat when asked to name the attributes of good teachers. Whereas teachers usually focus on instructional skills, students list teachers' rapport with students as a key quality (Benson, Cohen, & Buskist, 2005). Indeed, efforts to identify the essence of good teaching suggest that the best teachers are approachable and open-minded, show patience and respect for students, care about students' success and are fair, show enthusiasm and humor, are good communicators, are creative, and make an effort to establish rapport with the students (Benson et al., 2005; Lucas & Murray, 2002). Developing rapport with students pertains to the immediate verbal and nonverbal interactions between a teacher and the students, such as eye contact and knowing students' names, as well as the personality characteristics of the instructor (Benson et al.; Vesilind, 2000). In a survey of students' experiences of rapport with instructors and its effect on their interest in the subject, attendance, and other academic behaviors, students reported that few of their instructors established rapport with them (Benson et al.). In classes where they did feel rapport with the instructor, students expressed more interest and enjoyment in the subject, claimed better attendance, and said they would be interested in more classes with the instructor.

Cultural and generational differences also can influence interactions between instructor and student. One of the best ways to illustrate concepts in class and develop rapport with students is to share personal anecdotes as examples. However, differences in cultural or generational backgrounds can make sharing personal stories less effective, if the students are not able to relate to the instructor's examples, or if the stories feel disingenuous. For example, a student might feel frustration with an older instructor using illustrative references to popular entertainment (e.g., music or television shows) that the student is too young to have experienced.

Teachers have a responsibility to promote a safe learning environment in their classes. It is a given that instructors should avoid prejudice and discrimination toward their students. It is also advisable to refrain from promoting their personal, noncontent-relevant views in class. In particular, it is probably wisest not to share personal political and religious leanings, even when politics and religion may be the topics at hand. For example, political campaigns and elections are rife with wonderful illustrations of many psychological topics and principles.

However, people in general tend to feel very strongly about their political views. To avoid alienating students who identify with particular social or political groups, examples from politics used in class should be neutral or equally balanced between various sides of an issue. To do otherwise and favor one side or the other is likely to alienate a segment of students and potentially distract the class from the topic at hand.

*Varying Academic Backgrounds.* Students come from a variety of scholastic backgrounds, arriving in class with varying levels of proficiency for basic skills. Teachers must therefore attempt to accommodate students' various starting points and bring them all up to the same level by the end of the course. One way to do this is to break assignments into segments that allow students to practice and master skills in sequence, gaining a new skill set through the course of the assignment. For instance, a teacher who wants lower-level undergraduate students to write a research paper would break the assignment into discrete sections, and provide feedback for each step before moving on to the next (Burke, 2008). Splitting an assignment into segments achieves several objectives. The first is that students are able to benefit from teacher support throughout the sequential steps of assignments requiring cumulative competence. The second is that students are required to work on the assignment gradually over time, avoiding the common pitfall of last minute, desperate attempts to complete complicated assignments. Third, because the early stages of the assignment are monitored and students are able to correct missteps before compounding them, the final product is of higher quality overall. Finally, receiving assignments in good condition expedites the process of grading, and the students are able to gain a common outcome regardless of differences in their ability upon beginning the assignment. The approach of breaking assignments into their components so that students can be guided and supported throughout the process works for presenting content as well. Teachers should begin with simple concepts and terms, and work up to the more complicated and complex concepts by building up the foundation of information (Zakrajsek, 1998).

*Learning Styles.* In addition to students' varying academic backgrounds, there are individual differences in learning styles among students. There are multiple theoretical explanations for differences in how students learn (Fletcher & Patrick, 1999). Without knowing the specifics for each student in every class, teachers can accommodate these differences merely by using a variety of modalities to present information and teach skills. One classification of learning styles might separate students who prefer hearing information from those who prefer visual representations, whereas a third benefits most from personally performing a task to understand how it works (Fletcher & Patric). An example of how to take into account these different styles would be if an instructor for a research methods course explains how correlations work, shows them sample scatterplots of positive and negative correlations, and then has them practice calculating correlations themselves. By presenting the same information in three different ways, the instructor can accommodate the students' different learning styles in his or her class (Fletcher & Patrick; Gibson, 1992; Vesilind, 2000).

*Class Time Management.* It is tempting for new academicians to attempt to apply the depth and breadth of their knowledge of their specialty to course assignments, under the impression that more is better when it comes to sources (Boice, 1992). However, findings suggest that students can absorb approximately four new topics in 1 h, and less if they have had no previous exposure to the information (Zakrajsek, 1998). Relatedly, students' attention also wanes throughout the period in a predictable curve. Students are most alert during the first 10 min of the class, retaining approximately 70% of the material presented, and then their attention drops precipitously, until the last 10 min of the class when they are likely to retain approximately 20%

of the material presented (Fletcher & Patrick, 1999; Vesilind, 2000). Teachers can derail this progression by varying tasks throughout the class, such as lecturing for a little while and then presenting a short video clip before discussion.

*Dealing with Problems or Difficulties in the Classroom.* Problems and difficulties in the classroom can be anticipated in some situations, or in others, completely take an instructor by surprise. Some problems may be common enough that the institution has a standard policy, such as procedures for addressing academic misconduct (e.g., cheating, plagiarism). Other difficulties may be harder to predict, but teachers can deal with them effectively by using their own personal teaching philosophy, in conjunction with the learning objectives for the course, to guide their decisions. Occasionally, a student will test an instructor's limits or resolve, by pressing some issue beyond the instructor's reasonable expectations. This challenge might manifest as a grade dispute, an unacceptable excuse for missing an exam, or an objection to the enforcement of a policy, for a few examples. Students can occasionally be vexing, and their behavior might prompt a strong emotional response from the instructor. In cases where the instructor needs to make a decision about how to handle a problem *post hoc*, it may be important to gain some distance from the confrontation in order to calm turbulent emotions and think more objectively about the problem.

*Class Disruptions.* Teachers may also encounter difficulties handling disruptive students in class. Students might do a variety of things that disturb or distract their classmates or the instructor, and the instructor, as the manager of the class, has to address the problem directly. It might be something relatively benign, such as whispered conversations while the instructor or other students are talking, or it could be something more disturbing, such as a student who says something extremely offensive during class discussion. Sometimes disruptions happen because students are not aware of the norms for appropriate conduct in class, but other times a student might act out of malice. The most important step in addressing problems such as these happens on the first day of class, when the instructor clearly lays out the rules for proper classroom behavior. Students will respect a teacher who takes firm control of a classroom, and most of the time, a warning is all it will take to head off a major issue.

Instructors' approaches to different disruptions vary based on the instructor's personality as well. New instructors should take several steps to deal with problems or disruptions in the classroom. The first step is to cultivate the all-important practice of documentation. The teacher should keep record of his or her interactions and exchanges with problem students, so that, in the event of escalation, he or she has evidence backing up his or her claims. This includes taking notes on things that happen during class. Second, instructors who are having continued problems with students disrupting class should seek out colleagues for support, and to exchange ideas for solutions to the problem based on others' experiences. Finally, instructors should be consistent with their enforcement of course policies and the application of consequences for misconduct. Students might interpret inconsistency as an injustice and take affront, which can make touchy situations worse. The *sine qua non* for dealing with disruptions in class is that advance preparation is the key to avoid problems before they happen; as the aphorism goes, "an ounce of prevention is worth a pound of cure."

Sensitive topics can also provoke disruptions in class. In psychology, especially, controversial or emotion-laden topics are de rigueur, as in classes covering topics like prejudice and discrimination, sexuality and gender, politics and law, developmental issues, or mental illness (Poe, 2004a). First, there needs to be a concrete and explicit reason provided for broaching each touchy topic. There is value in discussing these topics, both in terms of teaching critical

thinking and also in presenting the empirical evidence supporting claims. Poe suggests that instructors announce their own biases and opinions, in order to clearly differentiate between them and material presented as a fact. To further avoid land mines, the instructor might present both sides at the beginning, in order to communicate to students that either perspective is a legitimate part of the discussion. They might start class with a disclaimer about the sensitive nature of the topic of the day, and reiterate the need for students to remember to be respectful of their classmates. In cases where the students might disagree with the instructor, or with other students, the instructor should model how to respectfully disagree without disparaging each other. It may be necessary to explicate injunctions against criticizing peers as opposed to ideas, avoid monopolizing the discussion, and refrain from sharing personal information that might identify someone else to the class (Poe). Finally, to accommodate students who may have been too shy to speak up in class, or students who did not get a chance to express their opinions, a useful exercise is to have everyone write questions or comments and turn them in (Poe). Touchy subjects can produce teachable moments, but the teacher should plan ahead to take advantage of them, and to be able to handle them carefully enough that the learning objective is achieved without traumatizing the students.

*Students with Disabilities.* Some challenges teachers face pertain to meeting students' special needs adequately and compassionately. It is important that teachers consider how students with disabilities will be able to manage their courses. The most common disabilities, such as attention deficit or physical handicaps, are usually addressed by the school's institutional support services for students with disabilities. Many times, such students will be able to take exams under special circumstances, proctored by school staff trained to assist them, or outfitted with special equipment. It is a good idea to require that students taking exams outside of class take them at the same time as the rest of the class, if possible, to make it fair to the other students in the class (Boyd, 2008). Instructors should provide information in their syllabi about availability of services to provide equal opportunity to disabled students, and note the importance of students notifying the instructor of special needs early in the semester. As part of the course planning, the instructor should also think ahead about how requirements and deadlines may be adjusted for students with disabilities, including, for example, scheduling due dates with enough time to fit extensions in before the end of the semester (Boyd). Instructors might consider implementing written contracts with disabled students, explicitly stating the requirements and expectations for both the student and the instructor. By law, the instructor is responsible for providing equal opportunity to succeed, and it is imperative that instructors be informed of their school's services and policies (Boyd).

Students with disabilities may be proactive about addressing the issue with their instructors at the beginning of the semester, but some may not. Two students whose circumstances required special dispensation, each with differently satisfying outcomes, serve as good examples of the kinds of accommodations that might be necessary. The first student was an exemplar of proactive helpfulness. He approached one of the authors (B.C.J.) before class the first day and explained that he had an illness that occasionally made him so weak that he could not write, and other days not make it to class at all. He came with the paperwork I needed to sign for the Services for Students with Disabilities (SSD) Office filled out, a letter from a doctor explaining his circumstances, and the student worker assigned to be his note-taker in class. His conscientiousness made it so that the only action needed on the part of the instructor was to send his tests to SSD ahead of time. Most of the time, SSD offices require students who register with them to have documentation of their disability, and then SSD contacts the instructors for

each student in order to arrange accommodations while keeping the nature of the student's disability confidential (Boyd, 2008).

Another student presented a much more complicated case, and he was not proactive about informing the teacher (B.C.J) about how to best accommodate him. This student suffered from severe cerebral palsy, thus needing a large motorized wheelchair, and he could not speak or write. He enrolled late in a senior-level seminar course, which had been specifically designed to be very active, with demonstrations and simulations, small group and class discussions, short in-class writing assignments, and out-of-class reading and writing projects. The student did have a computer that would speak aloud what he typed into it, and that helped with discussions and small group work, but he had enough difficulty typing that his spontaneous replies were always delayed. He could not easily hold a paper to read it, which made handouts troublesome, but he had arranged with a classmate to take notes for him. His condition made it necessary to retool many of the lesson plans, and required that the instructor be prepared ahead of time enough to send him materials for class the day before so he could read handouts or type out responses on his computer. The instructor was confronted multiple times with decisions about whether to excuse him from certain requirements or hold him to different standards when compared to the other students in the class. This student ultimately dropped the class after failing the midterm. Though unsatisfying, the experience is a reminder that, when a disabled student does not offer information about how to meet his or her special needs, the teacher should reach out to other instructors and the SSD office to get help and advice. As Boyd (2008) notes, instructors may feel either exploited or ineffectual when dealing with students with various disabilities, if for example, a student claims a disability when asking for an extension, or conversely, if all the instructor's best intentions fail to reach a student. Careful preplanning and open communication with colleagues lessens the magnitude of either emotional possibility.

Whether thinking through adjustments in expectations, or finding materials that provide equal accessibility, it behooves the instructor to be well informed. The school will have an official policy and procedure in place to accommodate disabled students, as dictated by law, but instructors can also become more informed on how they personally can adjust their own teaching methods. The decision whether to hold disabled students to the same standards as the other students in the class on course components affected by their disability is dependent on philosophical, legal, and ethical considerations, in addition to the pedagogical facets. Instructors have a growing wealth of technology at their disposal to help them accommodate students with visual impairments, for example. Instructors who are recording their classes to podcast lectures on their Web sites can use that same technology for students with disabilities as well (Boyd, 2008). Occasionally, students may request to record classes for themselves. In either situation, instructors should get permission from the other students in the class before any recordings are made (Boyd,). Another option for instructors is to contact the publishers of course material to inquire about alternative formats. Many textbook publishers have either preprepared audio recordings of their texts, or plain text (\*.txt) files of the books that can be fed into computer programs that will speak it aloud (Boyd). Depending on the typical population of a school, instructors might take into account the availability of alternative formats when choosing course materials in the first place. The bottom line is that instructors should plan for students with disabilities to be in their courses, and think about how to best accommodate their needs.

*Troubled Students.* Sometimes, issues in students' lives outside of the class enter into the classroom. Teachers are at times the first to notice if a student is experiencing a personal

problem, for instance because the student's work changes suddenly (Perlman, McCann, & Kadah-Ammeter, 2008). It might be that a student seems to be suffering from a condition such as extreme depression or an eating disorder, for example, and the teacher feels like the problem is severe enough that he or she is morally obligated to approach the student to try to help. However, teachers should be aware that there are risks involved with dealing with troubled students, and therefore there are some general rules to remember. Students are somewhat more likely to open up to psychology teachers, especially those with clinical or counseling backgrounds, because the students think that they will be able to help them better than a teacher of another subject might (Perlman et al., 2008). Furthermore, students might be more likely to turn to new teachers if they are closer to the students' age, because they feel like they can identify with the teacher better. Unfortunately, students' personal problems are, for the most part, outside the jurisdiction of the instructor's relationship with them, and in cases where the problem is severe, the instructor's most important intervention is to refer the student to the appropriate authority or service. The university health center will sometimes offer free counseling and psychological services for students, or the student might be able to get the help they need from campus police, the university's legal counseling office, or the dean's office. The point is that the teacher should avoid establishing a dual role with the students. Most teachers are not trained to handle students' personal problems, but even if they are, as in the case of clinical psychologists in academia, it is not appropriate for them to try (Keith-Spiegel, 1999; Perlman et al.).

The APA publishes the organization's ethical principles and their code of conduct, and those documents provide guidelines that all instructors can use. For the most part, if teachers remember that they should avoid doing harm, and try to be helpful, they can address student problems without stepping outside the boundaries of propriety (Perlman et al., 2008). For example, instructors should make an effort to listen carefully to students, respond in a way that demonstrates their respect for the student, and follow through on promises to help by providing resources or directing them toward the people best suited to help them (Keith-Spiegel, 1999). Keeping a student's secrets confidential is important, but the instructor should remember that if they find out that the student is planning to hurt others or themselves, he or she is bound by law to notify the proper authorities. The recent instances of campus shootings serve as vivid examples of how not addressing obviously troubled students can produce tragic outcomes. Teachers should also be aware of the school's policies and available services, and observe departmental norms for closed doors for meetings with students, if they attempt to address students with personal problems (Perlman et al.).

*Dual Relationships with Students.* Teachers dealing with troubled students should endeavor to avoid allowing a dependant relationship to form between them. A troubled student might become emotionally invested in a teacher who is especially helpful during a trying time, especially because of the hierarchical social arrangement wherein teachers have more power than students do (Keith-Spiegel, 1999; Poe, 2004a; Vesilind, 2000). This risk is why it is important to refer students to the proper services to help with their problems, rather than taking it on personally, even if the teacher is trained to deal with the students' problems. The teacher is still in charge of evaluating the students' performance in the class, and that can be complicated if the teacher has another relationship with the student besides being his or her instructor. Therefore, the instructor might need to be firm about limiting the time spent in conference with the student, or the amount of contact the student has with him or her outside of class (Poe). It might also be necessary for the instructor to carefully derail a student's attempt to over-share personal

information, especially if that happens in class (Poe). In order to be fair to the other students in the class, and to minimize the risk of negative consequences if the nature of their relationship changes, instructors should refrain from forming dual relationships with students.

There are other ways that students and teachers can create problematic dual relationships. Under no condition should teachers become involved in personal, romantic relationships with their students. The school may have a formal policy against this type of behavior, but if not, it is still ill-advised. However, that simple dictate is complicated by the possibility of a prior relationship with a person who then enrolls in the class. Aside from romance, there are a couple of types of preexisting relationships that present a problem for the instructor. The instructor might have been friends with the person or belong to the same circle of friends. A student might have worked as a research assistant in the lab with or for the instructor, or the student might have worked in another capacity in the same place as the instructor. It can be uncomfortable to change the nature of the relationship into one wherein the instructor is suddenly in a position of authority over the person as they might not have been so before. There is a threat that other classmates might feel like the instructor is favoring a particular student, and indeed an instructor's opinion of a student can color his or her grading of the student's work (Keith-Spiegel, 1999).

When instructors and students have the same extracurricular interests or activities, such as recreational activities, local establishments, or religious services, they can be forced into proximity, especially in small college towns (Keith-Spiegel, 1999). A newer manifestation of an inappropriate dual relationship is connecting with students through online social networking Web sites. For example, students may find their instructor on sites such as MySpace or Facebook, and request to be "friends" online. Most of these networking sites offer privacy controls that disallow strangers searching for instructors' pages, and instructors should be mindful of the kind of information they publish about their personal lives online. In general, it is not a good idea to form nonacademic relationships with students outside of class, and prior relationships should be handled with care and in compliance with school regulations.

*Instructors Missing Classes.* The students do not generate all the problems that might arise in the classroom. Occasionally, life intrudes into the classroom and causes the instructor to miss class. Reasons include everything from jury duty to health problems, and absence might be for one class or the remainder of a long semester. Some absences are predictable, such as attendance of out of town conferences, while others arise completely unexpectedly. In any case, colleges and universities do not provide substitute teachers like in lower grade levels. The options for an instructor who needs to miss class include canceling class entirely or asking a colleague or graduate student to teach in his or her absence. Either approach has its drawbacks and benefits (Poe, 2004b). If there is room in the schedule of a course to accommodate missing a day, it might be that the students just enjoy the day off and class continues when the instructor returns, as if nothing out of the ordinary happened. Other times, however, it might be impossible to stop in the middle or drop whatever material would have been covered on the day an instructor must miss. If an instructor is going to ask someone else to cover the class, there are several things he or she should do to prepare (Poe). A movie or guest speaker might be brought in to advance the topic coverage in the instructor's absence. If the instructor knows another person who has experience teaching the course or satisfactory knowledge of the subject, he or she might be able to provide lecture slides and notes that the substitute can use to present the regularly scheduled material. In this case, the information needs to be accessible, either electronically or organized in such a way that another person could find it in the

instructor's office. Storage and organization are especially important in cases where the instructor's absence is permanent, and another instructor must take over the class mid-semester (Poe). The value of good record-keeping practices cannot be understated when it comes to having someone else step in to lead a class.

Missing or canceling class causes enough difficulty for the school, instructor, and students that instructors should be warned about the repercussions. It might sound self-evident, but instructors should avoid missing class if at all possible. This means scheduling personal or optional traveling around semesters, or planning the course schedule around anticipated absences before the course begins. Colleagues asked to fill in repeatedly should be offered something of equal value in return for their time, both in preparation and class, lest their willingness to help in a pinch wears out. Additionally, the power disparities between faculty and graduate students might make requests for assistance a compulsion to the graduate students, so instructors should be careful not to exploit them unnecessarily (Poe, 2004b). The final warning pertinent to missing class is the effect repeated absences might have on the instructor's professional reputation within the department. New academicians should remember that their promotion and tenure chances can be negatively impacted by injudicious absence. As more departments include student evaluations in the review process, the deleterious effect of excessive absences, or absences that are not handled well, on students' opinions of the instructor gains relevance (Poe).

Aside from the basic work of teaching students in the classroom, and the planning that goes on outside of the classroom, a key element of basic competence is self-assessment and reflection. Teachers who do not critically and empirically evaluate themselves and their methods for efficacy are blindly grabbing for success. Because the pressures of teaching, both in time consumption and emotional investment, can be so distracting, it is important to be methodical about improving teaching effectiveness. The following section describes the basic components of this self-evaluation.

### 21.2.3 Assessment and Professional Development

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Academicians should always be thinking of the future, for practical reasons such as tenure review, as well as for the personal gratification gained from having a successful career; however, success is defined (Savory, Burnett, & Goodburn, 2007). For many new academics, teaching consumes most of the time spent working for the first few years at a new position. Boice (1992) observed that many new teachers expect the efficacy of their teaching to improve, but treat it as a passive process that will happen automatically over time. He reported that, regardless of the type of school, new teachers experienced similar obstacles and evinced comparable strategies for professional development. Many taught defensively in an effort to avoid failure, and based the estimations of their teaching prowess on the tenor of students' comments in course evaluations. However, the best way to go about growing and improving as a scholar is to be methodical about reflection and self-evaluation, and make steady but gradual changes.

Three main audiences care about the professional developmental trajectory of academics. Students, colleagues, and supervisors are all directly affected by the decisions teachers make about their careers, and it is important to establish trust with them all. The first and most important step in growing as a teacher is systematic reflection on pedagogy and learning outcomes (Boice, 1992; Gibson, 1992; Savory et al., 2007). Learning outcomes can be generally

described as changes in knowledge, cognition, behavior, skills, attitudes, or beliefs (Gibson). This manifests itself in simple tasks, such as taking notes on how assignments or lecture presentations were received, or more complicated measures, such as testing iterations of assignments across semesters and measuring students' performance. The point of formative evaluation is to determine if a teacher is effective, and how he or she might become more effective (Buskist, Keeley, & Irons, 2008). One way for instructors to begin this process, taking into account the three audiences, is to formally write down the impression he or she is trying to create. This means consideration of the things the instructor wants the students, and his or her colleagues and supervisors, to say or not say about his or her teaching. The idea is that consideration of the question, "Who shall I be?" naturally leads to the question, "What shall I do?" which leads to a plan for action (McGovern & Miller, 2008). To make the project even more specifically applicable to instructional objectives, and to avoid a myopic focus on classroom performance as the entirety of teaching competence, the instructor might then go through the same process for each of his or her course components (e.g., tests, assignments, lectures, etc.) (Buskist et al., 2008). During this process, the instructor might consult a taxonomy of learning objectives, revisit his or her teaching philosophy statement, and refresh his or her memory for motivation and learning theories. The goal of the exercise is to find and make connections between what the instructor wants to achieve, and how he or she is putting plans into action (Savory et al.). This exercise is furthermore useful for avoiding the tendency of instructors to teach in a haphazard manner, using trial-and-error or default methods (Wilson & Kipp, 2004, for an in-depth treatment of the benefit of talking about teaching with colleagues).

The standard method of reflection that is typically imposed on instructors by their department is student course evaluations. These evaluations solicit both global and summative feedback on instructors' behavior, but while they are certainly necessary, they are not a sufficient tool for assessment of instructors' development and competencies (Fletcher & Patrick, 1999; Gibson, 1992). Some instructors get distracted by the "popularity" aspect of course evaluations, contending that instructors who give the highest grades and have the lowest expectations will score well with students. Others argue that students are not in a position to evaluate the efficacy of pedagogy they do not know or understand. Students are notorious for not appreciating the things that educators know are good for them. An evaluation of recent literature on teaching of psychology by Wesp and Miele (2008) determined that there is diminishing reliance on student opinion as a measurement of teaching competence. They note that student evaluations are a fine instrument for assessing students' enjoyment of methods or activities, but not learning outcomes. Research has determined that student opinions of teachers do not correlate with pedagogical effectiveness (Wesp & Miele). Many instructors object to course evaluations being used by supervisors in promotion and tenure reviews, for these very reasons.

There are, however, ways to make student course evaluations more helpful measures of teachers' efficacy. First, instructors should offer evaluations more than once during the term, so that there is time to make adjustments that affect the current class, which motivates the students to put more stock in evaluations overall. Second, evaluations should collect both summative feedback that is personalized to the instructor and the course. However, students should have a chance to write replies to open-ended questions in order to supply examples or explanation of their ratings. Finally, evaluations should assess specific aspects of the course and instructor, as opposed to being restricted to overarching generalizations that do not allow for nuance.

One of the foundations of good, reflective teaching is good record-keeping. Teachers who want to systematically assess their development over time need to collect and organize their information in a way that allows them to monitor changes (Savory et al., 2007). These records consist of both the records generally collected in the normal course of teaching a class (e.g., grades), as well as notes about ideas and outcomes. Another good exercise that all teachers should complete is video or audio recording of their teaching and evaluating the recording for both style and substance. Many problems or distractions that are invisible to the teacher doing it can be discovered and eliminated, benefiting the students. Though it can be a painful exercise, teachers can only improve issues they know about.

Once instructors have gotten into the habit of creating and collecting records of their teaching, the next step is to immerse themselves in understanding the principles of teaching and learning (Savory et al., 2007). This might mean reading general teaching instruction books (McKeachie's, 2002) or reading current research in peer-reviewed journals about teaching. An instructor's colleagues are an invaluable resource for learning about teaching and developing professionally. Conferences or workshops about teaching can expose instructors to innovative research, allow them to network with other skilled teachers, and offer a forum for discussion with like-minded colleagues from outside of their home institution (Gibson, 1992).

Exposure to sources of new methods and strategies allows teachers to pool their effort and time when they share their discoveries and developments with each other. New teachers may begin their jobs with a limited arsenal of teaching methods, or little to no experience with practical applications for theoretical teaching principles.

### 21.3 Expert Competencies

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Novice teachers and academicians need necessarily start at achieving basic competencies while teaching selected content material. As teachers gain experience, and as their content knowledge expands in depth and breadth, they can begin to build their repertoire of teaching skills and course offerings. Experienced teachers who are experts in their areas should be able to present content information at different levels of complexity. Instructors may need to teach the same content area at an undergraduate introductory level, a senior level, and/or a graduate level. The conversion requires that teachers be able to know both how to choose information that will interest and benefit students at different levels, and prioritize information that students need to understand whether they are interested or not.

It is important when teaching different level courses in the same area that the departmental standards support the educational objectives set out in each course (Marsh & Poepsel, 2008). Departments design their curricula based on what students need to know to be properly trained in the area, and this means that courses at different levels (e.g., introductory or advanced) need to be complementary. For instance, a sophomore-level course in a topic should prepare students for a senior-level course in the same topic, and if required as a prerequisite, it should be necessary not just sufficient for success in the senior-level course. Furthermore, courses that build upon each other across topics (i.e., abnormal psychology before clinical psychology courses) should be both necessary and sufficient in the progression of students through the program.

Expert teachers should be more systematic about designing their courses in accordance with their desired learning outcomes. This planning process is streamlined in experts because

they have achieved facility with both content materials and pedagogical methods, and are able to draw from known alternatives the best way to meet those goals. While novice teachers work from a more static script based on their rudimentary understanding of pedagogy, expert teachers can look ahead to the long-term ramifications of their decisions about course design and execution. For instance, expert teachers who use scientific experimentation to test the efficacy of teaching innovations or interventions can design their educational goals and instructional objectives to produce learning outcomes that are able to serve as dependent variables (Smith, 2008). Teachers who demonstrate expert competence have the entire course, from planning to assessment, purposefully designed to meet goals on multiple levels: learning goals for the students, integration with the department's overall outcome goals, and the teachers' own personal professional development goals.

### 21.3.1 Outside the Classroom

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#### 21.3.1.1 Course Planning

Expert competencies can be distinguished from basic competencies on at least two important dimensions. The first is how well the teacher himself or herself understands the content material and is able to synthesize that information for the students. The second is how well the teacher organizes the presentation of that content material based on pedagogical principles. For both dimensions, a similar progression is the most effective approach to planning and presenting the material. As a teacher gains expert competencies in a given content area, either because he or she specializes in that material or in the process of learning the content to teach it, his or her understanding of the information reaches the highest taxonomic levels of knowledge. The instructor has taken the basic principles and jargon, built cognitive structures to organize that foundational material, and is able to use the information practically, having an understanding of procedural applications or steps. An expert in a content area will then be able to look critically at how the knowledge he or she gained was produced, attaining metacognitive knowledge. Likewise, experts not only have the highest levels of knowledge of an area, but are also equipped to use the more complicated cognitive processes of analysis, evaluation, and creation of new knowledge.

*Taxonomic Integration.* It is important for instructors to think from the perspective of the naive students when planning how to teach a subject, instead of approaching the process from their own expert point of view. Students need to move through the same sequence of taxonomic levels that the instructor originally followed himself or herself. They will not be able to grasp the organization and structure of information if they are only given the lowest level of basic knowledge (i.e., jargon). Instead, teachers should guide students through the steps, allowing them to build their own understanding from the foundation up, using the principles of scaffolding. While the uppermost levels of knowledge require a solid grasp of the lower levels, understanding of the basic information is also augmented when seen in the context of the higher levels. One way to plan this guiding process in course design at an expert level is to approach the instructional objectives from the end to the beginning. This is called *backward design* (Wiggin & McTighe, 1999). If the point of a course is for students to gain a practical skill or procedural understanding of a content area, then the examinations should test for that level of knowledge. From the exams, the teacher should plan how the students need to practice the

action scripts in order to gain the needed procedural knowledge, and make those activities or exercises the course components (e.g., discussion, assignments, demonstrations, etc.). The last step is to figure what the students need to understand about how the concepts fit together, and organize instruction to achieve it and ensure that instruction encompasses the presentation of basic elements and factual knowledge. Inexperienced teachers may be distracted from the necessity of thinking of the end goal when putting together content material, and end up missing important foundations, mismatching the exercises to the cognitive structures of knowledge, or not practicing the proper skills. An expert teacher is able to not only keep sight of the hierarchical levels of content information, but to also approach instruction methodically according to pedagogical best practice.

Textbooks designed for undergraduate courses tend to be organized around a single guiding principle. The principle might be a common application of the content, an overarching theme to draw disparate areas together, or a particular theoretical perspective. Structural organization of knowledge may differ between that presented in textbooks and that used by theorists or practitioners in the field. An expert teacher, however, can use his or her proficient knowledge of the area to decide on the best organization of the content to suit his or her educational goals. Expert teachers, therefore, benefit from reviewing a variety of sources or textbooks, in order to take advantage of the different perspectives and examples. Teaching at higher levels, such as in upper-level undergraduate courses or training graduate students, is fraught with gray areas and equivocation that lower-level students are not equipped to evaluate and assimilate. For example, one textbook might present information about cognitive behavioral therapy (CBT), but an academic clinician would know that there is a variety of methods included under that omnibus label that might even contradict each other. An expert teacher and a professional-level clinician would be able to discern what of that complexity is important to learn, as well as be able to pull in resources from different sources to support their conclusions.

*Integration of Methods and Content.* In addition to the benefit of customizing curricula to suit individual teaching priorities, an expert is able to bring together information about the genesis of content knowledge, meaning and the empirical research responsible for perpetuating psychological discovery and innovation, in a way that illustrates the proper breadth of study. For example, one potential downfall of textbooks for lower-level courses is that they present classic and contemporary research in a manner that might suggest to students that there are a few seminal studies or revolutionary researchers who determine what is “true,” and that the rest of the field merely elaborates on what those luminaries find. This perspective is somewhat evident in collections of selected readings generally produced as textbook supplements, or in the anthologies of current studies that comprise the various psychology annuals. Far from the idea of a “critical experiment” approach sometimes insinuated in textbooks, psychological inquiry is comprised of programmatic research and convergent evidence. In comparison to either supplemental compilations or professional annual reviews, a suitable mid-level approach is the series of books that present current controversies in select subfields of psychology and offer opposing research reports for students to evaluate on their own.

Along the same lines, expert teachers should strive to incorporate methods with content in order to continue students’ progress toward metacognitive levels of knowledge. It is important to know *how* psychologists know the things they know, and understand how inextricably intertwined the *way* knowledge is gained is with the knowledge itself. Social psychology offers an exemplary model for integrating research with content information, because social psychology explores everyday human phenomena that lay people are already motivated to explore

themselves. The simplest way to achieve this goal is for teachers to include information about which research methods are appropriate for investigating which types of psychological phenomena simultaneously with the content information. Instructors might require that students evaluate the research used to support claims for soundness, or better yet, practice designing their own research to test ideas and conclusions. Though in many schools, undergraduate students are not able to conduct independent research as a course component, they may still benefit from the mental exercise of choosing the proper methods, formulating hypotheses, selecting and operationalizing variables, and thinking through questions of analysis and validity. Graduate students are able to pursue their ideas more often, which is why many graduate-level seminars require students to write research proposals within the content area as the major requirement in the course. When students are able to evaluate, analyze, and synthesize both the content knowledge *and* the methods of investigation necessary to achieve it, they have reached the most sophisticated level of knowledge in that area.

*Adapting Existing Courses.* Another aspect of modifying courses to increase a teacher's repertoire is converting classes across venues, such as making in-person courses available in an online format. The first thing to consider is what aspects of the course are imperative to competency in the topic, and how those aspects will translate to a new setting. For instance, courses with laboratory portions, such as undergraduate methods courses, may suffer from adaptation to an online format, because the hands-on experiences possible in a lab cannot be reproduced effectively online. One of the most difficult attributes of a physical classroom to convert into an online format is immediacy of the material and the instructor. There is a powerful motivation and inspiration in the fact of having to be somewhere at a specific time, surrounded by classmates and an instructor. However, if the teacher is mindful of the overarching educational objectives, and grasps the structural organization of the topic area at a conceptual level, he or she should be able to design exercises that guide students to the same procedural knowledge that the original activities did in person, using principles of backward design. This harkens back to two different aspects of course design and classroom management mentioned earlier in the chapter. First, when making courses available to differently abled students, teachers need to be imaginative and resourceful in designing course components that are accessible to a variety of students. Second, though most novice teachers do well to take established teaching methods and course design from existing sources (e.g., textbooks or colleagues who have previously taught the course) as a starting point, as they become more proficient in both the subject area and pedagogy, instructors should be equipped to produce innovations. This reflects their achievement of the highest taxonomic levels of knowledge, which are creativity and metacognition (i.e., "thinking about thinking"). In research, this process manifests as replication with different operationalizations of the same variables, which provides both external validity and convergent evidence of the conclusions drawn. In the classroom, those outcomes are equally important to good teaching and learning.

Other changes a more experienced teacher might make would be to accommodate new populations of students in the class (for instance, if the course were cross-listed with other departments), or present a course during the summer as opposed to the semester. Both of these differences in course presentation are affected by the way the teacher instructs students on the cognitive structuring of the information. From other majors, especially psychology's cousins in the social sciences (e.g., sociology, anthropology, etc.), the students coming in may have been taught completely different ways to organize and evaluate the basic information of an area. For example, psychology places great value on experimentation and multivariate approaches to

investigating psychological phenomena, whereas sociology students might be trained to prefer ethnographic research methods, or anthropology students might favor appreciative or participatory inquiry. When students from other disciplines are allowed to enroll in courses without fulfilling departmental prerequisites, the class's progress can be delayed by the necessity of working backward until a common denominator can be found in the organizational cognitive structures of different students, and beginning from there. Summer courses can indeed have the advantage over semester courses when the students need intense guidance to build cognitive structures, because most summer courses operate on a condensed schedule, and therefore gain momentum more quickly when accruing a critical mass of information upon which to found their understanding.

*Increasing Technological Sophistication.* Some of the technological advances in teaching make such conversions, or sometimes the modernization of an existing course, easier due to the parallel nature of in-person versus technology-driven methods. The most straightforward example of comparison may be the online discussion board versus in-class discussion. While the in-class version of discussion benefits from immediacy and nonverbal cues to enhance communication, online discussion boards boast several, possibly more valuable alternative virtues. First, online discussion boards offer asynchronous interaction between students, allowing discussion to occur even when students are not able to be in the same place at the same time. This is good for nontraditional students, or for allowing discussions to extend beyond the confines of a single class period in time. It also keeps a permanent record of discussion contributions, which is useful for both the instructor when grading participation, but also to students wishing to refer back to previous statements. Finally, it allows students to not only think through what they want to say without the influence of the same types of personal or social pressures (e.g., shyness, monopolizing by classmates), but also to increase the likelihood that students will process the information at a deeper level, in order to express themselves in writing. If an educational objective for a course is to make students be able to evaluate, synthesize, and communicate their understanding of topics, then discussion is a good method for practicing those skills. Online discussion and in-person discussion both achieve those ends, and either would be a suitable adaptation for different settings of a course.

Injecting new technology into the classroom should always serve to increase the effectiveness of instructional objectives, not as technology use for technology's sake. Some technologies allow teachers to solve a logistic problem or strengthen the efficiency of certain teaching methods. In the same way that online discussion boards might allow distance students to interact with each other despite not sharing a classroom, some new classroom technologies permit teachers to do activities or exercises with classes that would otherwise not benefit from such techniques. In large-enrollment courses, for instance, small groups may be able to work through problems or practice exercises using online discussion boards out of class, whereas in-class discussion in small groups would be impractical because of the sheer size or configuration of a large-enrollment classroom. An example of technological innovation especially effective for large-enrollment courses is "clicker" technology, where students have individual, wireless communication devices, with which the teacher can administer and score impromptu test questions, take roll, or conduct informal surveys in the class and immediately integrate it into the electronic presentation of the lecture. Clickers allow students to be more actively participatory even in classes with hundreds of students enrolled. Occasionally, the integration of new technology into a course forces instructors to reevaluate their course components, delivery, or instructional objectives, as inconsistencies or flaws are highlighted by the new medium.

As described in the basic competency section of this chapter, use of technology should be carefully informed by the educational goals of the course, in order to ensure that there is a good fit between the strengths of the tool and the desired learning outcome.

### 21.3.2 In the Classroom

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Differences in students' learning styles necessitate that teachers incorporate a variety of methods and techniques in their classes in order to improve the chances of reaching all the students. Advanced teachers can go further to improve the utility of their methods and materials for a wide array of students by taking advantage of some more complicated approaches. Calvin P. Garbin, one of the authors, asks his students to think about how they learn best, whether by listening or by reading, and use their weaker learning style to "warm up" before attempting to learn new material via their stronger learning style. For example, a student who is an auditory learner would benefit from reading the text before attending class, in order to begin to establish the jargon and cognitive structures necessary to assimilate the material presented in class. This allows students to get more out of the lecture than if they were to attend "cold." Likewise, a student who benefits more from reading would use the lecture as a "warm up" for doing the reading assignment, so as to get more out of the text. Another way to think of this two-step process is metaphorically. Aside from one or another learning style, students need a preliminary foundation of information upon which to build understanding (see the taxonomies of learning objectives), and they are only able to absorb small amounts of completely novel information in a sitting. Therefore, if students prepare for class by reading the assigned text or completing some other introductory activity, for example, it is as if they have been provided a coat rack in their own minds, and then in class, the instructor hands them the coats to hang upon it. Without the rack in place first, the coats presented in class just fall to the floor. Following this two-step approach allows students to get more benefit from time spent studying and in class.

#### 21.3.2.1 Responsive Teaching Methods

An increasingly common method for maximizing the utility of class time spent with the instructor is called *Just-In-Time Teaching* (JITT; Novak, Gavrin, Christian, & Patterson, 1999). Teachers using this method require students to complete brief web-based assignments shortly before coming to class, which the instructor then uses to tailor class time to meet specific students' needs. For instance, students might take a quiz over the material to be covered, and based on what most students are or are not grasping, the instructor can adjust the day's lecture to focus on areas that are most challenging. This technique is a highly responsive way to make class an active learning environment, in which students are clearly and explicitly participating in the construction of their own understanding. Frequency with which an instructor employs such methods may vary based on the complexity of the material, the level of knowledge students bring to the class to begin with, or the instructor's comfort with the material.

As a complement to the spirit of JITT, one of the authors (C.P.G.) developed a technique that is similarly responsive to students' spontaneous needs, but in the opposite direction from JITT. He dubbed this method *Barely Late Teaching* (BLT). Instructors can accommodate spur of the moment issues, such as providing clarification or further examples and demonstrations

of complicated processes covered in class, by producing and providing further instruction or material soon after class adjourns. For example, after students struggled in an undergraduate lab with running a statistical analysis using instructions presented in paper handouts, the instructor (C.P.G.) prepared an Adobe Captivate flash animation of the process and sent it to the students. Captivate allows a user to “record” what they do on a computer screen, such as clicking through the guided user interface of a statistics program, in a video file, and then insert labels and narration if desired. The result is largely the same as demonstrating something to students in person. Another instance of BLT that proved the method’s usefulness was when the instructor, after going over the same exam review for a series of students visiting office hours individually, audio-taped his explanation and e-mailed it to the rest of the class, under the assumption that most of the students would benefit even if they could not make it to office hours. Teachers can employ the BLT technique for handouts needing modification, additional lecture presentation slides, audio files of explanations, or other assorted tools.

In discussion of the possibilities and merits of BLT, one of the concerns that arises is whether this method makes the instructor appear unprepared versus committed because of taking that extra effort. Though instructors should always put effort into planning ahead for contingencies when preparing their courses and lesson plans, the reality is that unexpected questions do surface, while other times inspiration strikes after the fact. Sometimes, the best laid plans fall flat. Rather than lamenting the occasional unpredictability of “teachable moments,” instructors can take advantage of unanticipated opportunities to improve their instruction, and then incorporate those new materials into the original plan for the next time he or she teaches the course. Teaching is a dynamic process, and expert teachers are able to adapt their methods in response to changing students’ needs.

### 21.3.3 Assessment and Professional Development

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Development as a teacher is dependent on reflection and systematic self-evaluation. Instructors might feel discouraged when they read books describing the personal characteristics of the best teachers, because those qualities are usually stated in global, immutable terms (Keeley, Smith, & Buskist, 2006; McGovern & Miller, 2008). However, it is much more practical to think of the *behaviors* of good teachers, because behaviors can be changed through effort, while personality characteristics often cannot. McGovern and Miller reported that while researchers can distill the personality characteristics that might underlie the behaviors evinced by master teachers, the qualities that stand out to students are particularly effective instructional techniques. It makes more sense for teachers to practice the skills of teaching than to focus on the dispositional virtues found in many good teachers. Whether novice or experienced, teachers’ habits and practices are what make them good teachers or not. (Buskist et al., 2008, for a comprehensive overview of evaluating and improving teaching).

Teachers wishing to move beyond basic competency toward expert status should be systematic about their self-evaluation (Boice, 1992; Savory et al., 2007). In addition to the normal reflective writing recommended for simple examination, teachers might turn to empirically tested scales and assessments. For example, Buskist, Sikorski, Buckley, and Saville (2002) developed the Teacher Behavior Checklist (TBC) based on students’ and teachers’ ranking of the characteristics of the best teachers, and the behaviors that reflected those qualities. Keeley et al. (2006) adapted the TBC for use as an assessment tool that teachers wishing to advance

their teaching development could use to identify problem areas. A factor analysis of the measure determined that two subscales were represented in the checklist. The first, which they interpreted as “caring and supportive,” echoes the emphasis in previous research on the importance of developing rapport with students (Benson et al., 2005; Fletcher & Patrick, 1999; Lucas & Murray, 2002). The other factor identified was “professional competency and communication skills” (Keeley et al.). As Boice noted, novice teachers may approach improvement as a passive process; an expert teacher, employing a psychometrically sound, diagnostic instrument such as the TBC, can identify concrete areas to target for improvement and develop a plan for action.

Having a plan of action is important for professional development as well as triage. The statement of a teaching philosophy is another manifestation of a plan. Many novice teachers do not develop a teaching philosophy that is any more complex than a few guiding principles. However, it is a good thought exercise as teachers grow and mature to formalize their priorities and goals. Oftentimes, sentiments that are not articulated fail to influence actions meaningfully or regularly. In the same way that careful planning up front helps a course to actually achieve its goals and objectives, formal thought about the reasons behind pedagogical decisions and overarching goals increases the likelihood that they will be successful. As teachers move through their careers, improvement requires reflection and attention to empirical evidence of learning outcomes.

### 21.3.3.1 Scholarship of Teaching

In addition to the learning outcomes for students in each course, teachers define themselves and their careers the same way researchers do. The most defining product of the hard work that goes into teaching professionally is dissemination of the results (Smith, 2008). Publications, presentations at professional conferences, and closer to home, “brown bags” and colloquia offered within the department are appropriate venues for both sharing personal experiences and benefiting from others. If an instructor belongs to a department where teaching is not supported by these kinds of activities, it stands to everybody’s advantage to initiate them (Boice, 1992). These kinds of discussions can allow colleagues to share variations in pedagogical philosophies, success (and failure) stories, techniques and methods, or approaches to grading and testing, for example (Gibson, 1992). The obvious corollary is that teachers need to keep apprised of new teaching developments by reading publications and attending teaching presentations.

Instructors satisfied with basic competency are coasting on what works well enough, but expert teachers will endeavor to incorporate more sophisticated teaching methods and strategies. There are always going to be trends, new ideas, and rebirths of old techniques that sweep through the discipline and inspire teachers. The best way to choose which new things to try is to look at what needs changing first. The difference between trying anything randomly and selecting specific tools to meet known needs is an instructor’s time and energy spent with measurable benefit (Savory et al., 2007). Again, it behooves teachers to behave as researchers in this exercise. The first thing to clarify is whom innovations are meant to benefit. Between the students and the instructors, there will always be those who are excelling, those who are struggling to stay afloat, and everybody else.

*Innovations and Interventions.* Innovations might first be applied to those students needing remediation. Using empirical evidence of learning outcomes, teachers can identify the students

who are not achieving the objectives of the course, and attempt to determine the reason why they are not (Boice, 1992; Savory et al., 2007). Most classes will have a relatively normal distribution of student success (with the possible exception of mastery based courses wherein students redo assignments until they pass them), and not all students who fail do so because the teacher has not met their needs. Some students will fail on their own merits, and while that can be disheartening, it is unavoidable. However, some of the newer technological tools teachers have at their disposal can be used to distinguish between students who are not holding up their end, and students who are struggling but have the potential to succeed. For example, in the BlackBoard classroom management system, instructors can elect to track students' access of both general areas of the class's site and individual files posted for download (e.g., exam study guides). By collecting usage statistics, the instructor can analyze that behavior's relationship to student performance (e.g., exam scores). If the students who did poorly on the exam did not access the study guide, that information can be included in a reminder about downloading study guides for upcoming exams to increase compliance. However, if students who did access the study guide did poorly on the exam, it might behoove the instructor to examine the study guide to ensure that it is truly representative of the kinds of skills or information the exam covered. These small investigations can do much to dispel the role of conjecture in determining what elements of a course might benefit from revision, and some of the new tools at the instructors' disposal simplify the process.

Another factor to consider when including innovations that can improve students' learning outcomes is what static resources can be provided to further scaffold their learning process. For instance, many instructors will provide examples of assignments, either exemplary or otherwise, to demonstrate how the assignment should be completed to earn the desired grade. The samples may be graded or ungraded, but students who look at the examples will better understand what is expected of them. The idea behind this is not to tell them what the answer is, but to improve students' understanding of the expectations, and thus increase their chances for success. One thing that sometimes happens when instructors provide extra resources, however, is that some students will not take advantage of them. That self-defeating behavior is truly frustrating for some instructors, but the students who do take advantage of the tools, and subsequently benefit, make it worthwhile.

A particularly valuable innovation is one that increases instructor efficiency without any loss of instructional quality. The Internet has made innovations of this type easily available to teachers at any level. From institutionally hosted classroom management systems to independent Web sites instructors set up for their own classes, online resources are a boon. Technology that automates processes falls into this category. For instance, several online systems are available that allow students to take quizzes outside of class, and have them automatically graded and entered into the grade book. This tool is good for JITT methods, particularly. Another example of a way to automate a process to augment instructor efficiency is using a word processor to grade written assignments. The time involved in grading assignments partially depends on how much feedback the instructor plans to give for each assignment. Writing comments to foster improvement and detailed explanations of grading decisions takes a lot of time. If the instructor has students turn in assignments electronically, the grading process can be streamlined by using a set of preprepared, typed remarks and notes to copy and paste into the file. For example, Microsoft Word's clipboard feature holds up to 24 items at a time, and each can be chosen and pasted into documents as needed with the click of a mouse. This strategy ensures that comments are consistent across classes or assignments, allows instructors to ascertain the

most common errors, keeps a record of what is said on each paper, and avoids abbreviations or shorthand that might be necessary if comments were going to be written out by hand.

Finally, teachers can save time by talking with their colleagues and sharing ideas for short-cuts or time-savers that they have developed or discovered; the whole department benefits if teachers do not have to reinvent the wheel for themselves. One of the author's colleagues shared a spreadsheet program she designed for grading lengthy written assignments and calculating the grade automatically. In one sheet, a set of preprepared comments, compliments, and critiques was written out and assigned numeric values according to the grading rubric (i.e., a three-point deduction for APA style errors, 8 of 10 points for a reasonably well-written introduction, etc.). The instructor imported the class roster into another linked sheet. By selecting the comments that applied (using a true/false contingency formula), the instructor could prepare a personalized printout of the feedback for the assignment, with the score automatically calculated and reinserted into the roster for uploading into the online grade book. Although this tool required some time to prepare the first time, it more than made up for it with the time saved grading large piles of essays, and was especially valuable in cases where there was more than one person grading the assignment (i.e., an instructor working with a TA). These types of innovations, especially shared with colleagues, are incredibly valuable for increasing instructor efficiency.

Introduction of any innovation can be seen as an intervention geared toward those the instructor decides need help. There are two ways to approach interventions to address specific issues in the class. The first way to conceptualize interventions is as a way to avoid failure; is the goal is to have fewer students earn bad grades? Along this line, an instructor might use a systematic analysis of learning outcomes to isolate possible sources of confusion, or identify students' behaviors that might be impairing their success. Another approach to intervention is to seek success, in terms of improving methods that may work well enough, but could work better. The difference between being a good teacher versus not being a bad teacher is complex. Whether attempting to fix existing problems, or trying something new to make a course even better, the key is to act as a scientific practitioner of teaching (McGovern & Miller, 2008; Savory et al., 2007).

*Research on Teaching.* Methodical reflection on, and assessment of, teaching efficacy is as important as the scholarly approach to research (Savory et al., 2007). There is a false equivalence in the literature between the ideas of scholarly teaching and the scholarship of teaching and learning (Smith, 2008). For some, the sense is that scholarly teaching, wherein instructors conduct systematic analysis of their students' learning outcomes, is done "on the side" of their normal responsibilities, and therefore goes largely unrewarded (Smith). On the other hand, the scholarship of teaching and learning is widely recognized as a legitimate field of study. Smith contends that teachers typically do some kind of analysis of learning outcomes, but do not do so rigorously enough to count as scholarship (by, for example, including control groups). Scholarly teaching does not become scholarship until it is subjected to peer review and publication (Smith).

When using the classroom as a research venue, the same principles of protocol and ethics apply. The process should begin with a literature review, include necessary design elements such as randomization, if possible, data collection, and presentation of conclusions for critical review and dissemination (Smith, 2008). Teachers who know that they are going to be analyzing students' learning outcomes must attain consent from their students in order to include their information in research that might appear in publications (Savory et al., 2007). This must be done with care to avoid being coercive; students are a captive and vulnerable population, in that they may

feel pressured to comply or risk their grade in the course. According to the standards set by the institution's Institutional Review Board (IRB), data collected over the normal course of conducting a class might be exempt from review, but it behooves the instructor to check published parameters for use before making any assumptions. If the instructor is conducting the research for his or her personal growth, the IRB may not require a review (Savory et al.). Likely, the IRB will require that any information (i.e., grades) be de-identified before inclusion in research, to ensure the anonymity of the student participants, if the results are meant to be published.

Expert teachers wishing to introduce innovations or interventions into their courses may want to formally experiment with it, in order to increase scientific rigor (LoSchiavo, Shatz, & Poling, 2008; Savory et al., 2007). There are different ways to do this type of manipulation. First, a teacher who has more than one section of the same course might have students in one experience the intervention, and compare them to their peers in the other section as a control. The possible downsides of this strategy are both methodological and ethical in nature. First, in order to conduct proper experiments, there must be random assignment of participants to each condition (LoSchiavo et al., 2008). Students who enroll in different sections of the same course may differ from each other in some systematic way, which would introduce confounds to any conclusions drawn from the results. Furthermore, if a teacher thinks that he or she knows how to provide a better learning experience for his or her students, then it should not be withheld from some students while others benefit from it (Tomcho & Foels, 2008). Within-subjects designs, such as pretests and posttests, are a way to circumnavigate ethical quandaries of this nature (Tomcho & Foels). LoSchiavo et al. extol the virtues of online technology (such as web-based course management systems like BlackBoard) for allowing teachers to engineer random assignment or management of groups. They also suggest that in-class manipulation of interventions can be done by splitting a class period in half and having half the students attend one or the other portion. Another way to experimentally manipulate interventions is to do so across semesters, using a longitudinal comparison for the baseline measurement or control condition (Gibson, 1992). In this case, the instructor offers the same quality of educational opportunities to all of his or her students, without sacrificing the opportunity to test the efficacy of a new method empirically. Finally, when class time or size renders experimentation impractical, individual demonstrations or activities can be tested on volunteers drawn from a departmental participant pool of students (LoSchiavo et al.).

While disagreement remains over the ability of student evaluations to determine a teacher's quality, course evaluations do offer a wealth of information that can be mined for analysis (Gibson, 1992). Summative information, from statistical analysis of students' ratings for different elements or characteristics of the course or instructor, identify whether there is a problem that needs to be addressed (Boice, 1992). The formative information gleaned from student evaluations, including responses to open-ended questions, can identify areas in need of attention (Gibson). In the case of experimentation with new methods, course evaluations can serve as a source of students' subjective feedback on their experience (Boice), in contrast to objective measures of learning outcomes in the form of grades and scores (Tomcho & Foels, 2008, for a discussion on the utility of exam scores as dependent variables). Instructors should tailor their evaluations to probe the specifics of the course, instead of relying upon the standard and sometimes rather general evaluations used by default in the department.

Instructors engaged in scholarly teaching can further benefit from in-house grants for developing teaching innovations. Many schools set aside funds for teachers to use in pursuit of improving their methods and techniques or developing new courses. For instance, the authors'

institution offers instructors funding for developing new online summer courses, as the needs of modern students prompt the university to further diversify its course offerings. Institutional support for these endeavors may encourage more experienced instructors to adopt an evidence-based approach to their teaching, which they might not have otherwise been motivated to do. These small grants can be seeds for developing long-term programs of research, which can then yield publications and conference presentation opportunities. The more teachers think of teaching as a scholarly activity, the better their students are served.

*Programs for Teaching Development.* In addition to funding for teaching research, many institutions offer formal programs for their teachers' professional teaching development (Boice, 1992; Gibson, 1992). This support might manifest as a peer-review network that provides teachers with an organized method for acquiring special student evaluations in the forms of mid-semester questionnaires administered by a third party, colleagues willing to observe classes and offer feedback, and feedback on teachers' reflections and materials. Boice recommends that campus initiatives to improve teaching quality begin with basic skills, teach critical thinking and evidence-based approaches, and offer advice for developing resilience to disappointment. Teacher development programs will also generally supply instruction as to how to go about making learning outcomes more visible. One of the tools that is helpful in tracking growth over time is the teaching portfolio (Bernstein, Burnett, Goodburn, & Savory, 2006). Portfolios are typically overarching collections across a teacher's entire repertoire of courses and materials, including evidence of the efficacy of those methods in the form of self-evaluation and assessment of learning outcomes (Bernstein et al., 2006). Portfolios also include summary statistics from student evaluations, or brief entries describing the development of certain techniques. In contrast, a narrower course portfolio is a collection of the elements of a single course (e.g., syllabus, assignments, etc.), including the reflections on how the course design, structure of elements, and assessments all worked toward student learning (Bernstein et al.). It is useful for peer reviews of teaching efficacy because it comprises the whole picture of what went on during a single course. As part of a peer-review process, course portfolios can be used across disciplines to further or deepen conversations about different methods, objectives, and assessments that best promote student learning for individual teachers or for departments or institutions looking for evidence to support their procedures and projected student learning outcomes. As a tool, portfolios are useful either for instructors' independent professional development, or for use in promotion or award considerations.

## 21.4 Summary

Although teaching is sometimes treated as the least important activity on an academic's priority list, as a component of any academic clinician's professional responsibilities, teaching should be undertaken with the same kind of purposeful rigor with which research, service, and clinical practice are pursued. It takes considerable time, effort, and heart to acquire the repertoire of materials, abilities, and habits of a competent teacher. Basic skills underlie the foundation of competence, while more complex and sophisticated teaching methods and materials can be built up from that establishment as professionals gain experience. At the same time, high-quality teaching may come more naturally for clinicians than for other types of psychologists. After all, like clinical work, teaching is all about learning to listen and supply useful information at useful times. In that respect, teaching can be viewed as an extension of clinical skills, and

clinicians should take full advantage of those skills as they develop a teaching approach. Moreover, clinicians know the value of basing their practice decisions on the research literature, and so, again, need only apply this to teaching to realize the importance of keeping abreast with changes and improvement in teaching practices. In other words, the behaviors that comprise teaching competency should be practiced, informed by empirical evidence, and subject to the same kind of scrutiny as other scholarly work.

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