

Aspirational Model Teaching Criteria for Psychology

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Abstract

In 2011, the Society for the Teaching of Psychology commissioned a presidential task force to document teaching criteria for model psychology teachers in undergraduate education. The resulting list of criteria reflects activities related to face-to-face course interaction and online teaching, training, and education; course design; implementation of learning experiences; and the assessment process. Specifically, the model encompasses six broad areas, namely training, instructional methods, assessment process, syllabi, content, and student evaluations of teaching. As a developmental tool, the model can serve as a self-guided course for self-assessment of educational practices and can help identify areas of potential development. It can prompt reflection about teaching strengths and weaknesses. The model can also be useful as a guiding structure for tenure and promotion.

Keywords

education and training, teaching psychology, model teaching criteria

Psychology has a long history of emphasizing quality in undergraduate education (e.g., James, 1925; Titchener, 1901; Wolfe, 1895), but the guidance offered to teachers on pedagogical practices has been somewhat haphazard. Teachers can obtain guidance through organizations such as the Society for the Teaching of Psychology (STP), conferences such as the National Institute on the Teaching of Psychology, graduate courses on the teaching of psychology, and scholarly publications such as *Teaching of Psychology*; but these resources do not offer concise, comprehensive guidelines for competent teaching. In order to provide more precise guidance on competent teaching, the STP Presidential Taskforce on Documenting Teaching Competencies created a list of criteria titled Model Teaching Criteria (MTC). The criteria outline the numerous practices and attributes that characterize the best college teachers of psychology and have been endorsed by the American Psychological Association's (APA) Board of Educational Affairs (APA, 2013). The purpose of this article is to describe those characteristics of model teachers.

Psychology has seen a recent increase in efforts to standardize the best practices in undergraduate education. For example, the APA (2007, 2013) produced detailed guidelines for the content and organization of the undergraduate psychology major. The APA (2011) further provided a broader description of the characteristics shared by high-quality undergraduate psychology programs, the *Principles for Quality Undergraduate Education in Psychology*. Despite these valuable suggestions, the central purpose of the *Principles for Quality* was not to clearly define standards for excellence in psychology teaching,

and they leave many aspects of model teaching undefined. The current document synthesizes the many previous efforts to define specific aspects of teaching quality to produce a list of criteria that define the model teacher of psychology.

The MTC consist of three components, that is, the specific criteria, suggestions for evidence that can be used to document consistency with the criteria, and references to documents that support the inclusion of specific criteria. The criteria and suggestions for evidence offer teachers a method by which they can self-assess their educational practices against the highest standards of the profession. When they find areas of potential development, teachers can engage in professional development by exploring the educational materials found in the supporting references. Given these uses, these interrelated resources have the potential to benefit teachers in various institutional settings varying from community colleges, private liberal arts universities, to land-grant universities and at all career levels.

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From a developmental perspective, the criteria can be a useful educational resource to novice teachers. Teaching of psychology courses are available in most doctoral programs in psychology (Boysen, 2011; Buskist, Tears, Davis, & Rodrigue, 2002), and the criteria could inform the curricula of these courses. For example, MTC areas might define the basic content of a teaching course, and the construction of teaching portfolios based on evidence for the criteria would be a valuable assignment. Although many graduate programs offer teaching courses, access to systematic teacher training in psychology graduate programs is not universal (Boysen, 2011). Furthermore, part-time instructors, graduate student or otherwise, are sometimes thrust into courses with little warning or chance for preparation. For these underprepared novice teachers, the criteria can provide not only a basic list of suggestions about quality teaching but also an extensive bibliography of teaching literature on which they can base a self-guided course on the teaching of psychology.

More advanced teachers can also benefit from MTC. Once individuals have decided to include teaching as part of their regular career responsibilities, they are likely to face expectations to document their teaching abilities. The criteria offer guidance on the specific characteristics to be documented, the evidence that needs to be accumulated, and a method for organizing the evidence. Such explicit guidelines are likely to be especially valuable to pre-tenure faculty. Hence, psychology departments may wish to consider adopting the MTC as a guiding structure for materials related to tenure and promotion.

Perhaps the most important purpose of the MTC is to prompt reflection about teaching strengths and weaknesses, and this applies to teachers of all levels. Novice teachers who examine the list of criteria may find components that they simply have not had the opportunity to pursue, such as writing syllabi. Recognition of such gaps in teaching experience should provide both motivation and direction in professional development efforts. For experienced teachers, the criteria can also motivate meaningful reflection. Faculty members have divergent strengths and interests (Boyer, 1990); it will be the rare teacher who meets the highest standards of all of the teaching criteria. Therefore, the criteria can provide even the most experienced teachers with an opportunity for change and growth. The MTC provide attainable goals for the majority of psychology teachers; even if the goals are aspirational for some, teaching can be improved by working toward the criteria.

Sources of the Criteria

Excellence in college teaching is multifaceted. The criteria for model teaching reflect (a) training and education, (b) course design, (c) implementation of learning experiences, and (d) the assessment process. This multifaceted approach is the characteristic that most clearly differentiates the current attempt to document teaching excellence from previous efforts to evaluate the quality of teachers. Although standardized student evaluations of teaching measures are useful (Keeley, Furr, & Buskist, 2010; Keeley, Smith, & Buskist, 2006; Marsh, 1983; Marsh &

Roche, 1997), they are also narrow in scope because they primarily assess behaviors that are visible to students in the classroom. A wider perspective can be obtained through peer review of teaching (Ismail, Buskist, & Groccia, 2012) but despite their value, even peer reviews of teaching are likely to miss some aspects of teaching excellence such as continuing development in pedagogical skill, employment of multiple teaching strategies, and engagement in the scholarship of teaching. Given the variety of information to consider when evaluating teaching excellence, construction of a teaching portfolio may be the most effective way to document competency (Schafer, Hammer, & Berntsen, 2012). Thus, we propose that model teaching be defined based on a portfolio of evidence reflecting the following six broad areas: training, instructional methods, assessment process, syllabi, content, and student evaluations of teaching.

Although model teaching is multifaceted, there are some characteristics of excellent teachers that are not included in this review. The criteria mainly reflect activities related to face-to-face course instruction, although the MTC can also be used for teachers of online courses. In addition, focusing on course instruction leaves out other activities in which teachers facilitate learning. Advising, research supervision, and curriculum design are some of the areas that are not explicitly covered in the criteria. In addition, instruction of online and blended courses includes some specialized technical and pedagogical abilities not represented in this document, but there are many more facets of teaching excellence that are shared between face-to-face and distance teachers. Amendment of the characteristics to include aspects of online and hybrid teaching would be a particularly valuable direction for future research.

A guiding principle behind the efforts to define a model teacher was the production of a set of criteria that would guide construction of a portfolio of evidence. Thus, teaching activities that cannot be documented with objective evidence are not included. For example, it is certainly true that many of the characteristics represented on the Teacher Behaviors Checklist, such as enthusiasm, humor, accessibility, and confidence, are associated with good teaching (Buskist, Sikorski, Buckley, & Saville, 2002; Keeley et al., 2006), but they are not explicitly listed in the MTC. Nonetheless, many of the more abstract and difficult-to-define characteristics of model teachers can still be represented directly or indirectly in criteria related to student evaluations of teaching. As with any operational definition, there are strengths and limitations, and it is important to emphasize that the explicit omission of some teaching activities and methods is not intended to suggest that they lack value.

Definition of Model Teacher Criteria

Model Teachers Are Well Trained

Model teachers are well trained and up to date in their knowledge and methods. Both specific and general training are essential because teaching excellence is built on a foundation of psychology-specific knowledge and general expertise in pedagogy. In addition, the ever-changing nature of science, higher

Table 1. Definitions, Sources of Evidence, and References of MTC of Training.

Model Criteria	Suggested Sources of Evidence	References
<i>Subject knowledge</i> (i.e., exhibits exemplary knowledge in subject area)	CV with degrees listed; Copies of graduate transcripts; Publications/presentations in content areas taught; Records of continuing education (e.g., conferences and workshops)	APA (2011)
<i>Pedagogical knowledge</i> (i.e., possesses knowledge in basic educational theory and practice)	Graduate level pedagogical training (e.g., courses in educational psychology or college teaching); Records of continuing education such as conferences, workshops, professional society participation; Scholarship of teaching and learning publications/presentations/projects	APA (2011); Buskist, Carlson, Christopher, Prieto, & Smith (2008); Buskist & Benassi (2012); Groccia (2012) Prieto & Meyers (1999)
<i>Continuing education in pedagogical knowledge</i> (i.e., maintains up-to-date knowledge in educational theory and practice)	Records of continuing education such as conferences, workshops, professional society participation	APA (2011); Society for the Teaching of Psychology (n.d.)

Note. MTC = model teaching criteria; CV = curriculum vitae.

education, and technology requires an ongoing commitment to learning about the craft of teaching (see Table 1 for description, sources of evidence, and resources on training).

Maintain expert knowledge in a subject area. There is consensus that excellent teachers are experts in their field of instruction (Buskist et al., 2002). The need for subject-specific expertise is officially recognized in several ways. At the most basic level, teaching positions have minimum requirements for degrees and degree specializations. In addition, the APA's (2011) *Principles for Quality* undergraduate education states that instructors should not be given responsibility for courses outside of their training or knowledge, and it is considered unethical to teach outside of one's area of competency (APA, 2010). Thus, model teachers instruct courses for which they have adequate knowledge and training. Basic knowledge of a subject is just a starting point for the best teachers, however (Buskist et al., 2002). Teachers should stay up to date in their field. They should also have salient examples and real-life illustrations of their subject matter. Model teachers remain intellectually engaged in their subject.

Acquire knowledge about basic pedagogical theory and practice. The process of becoming a model teacher is doubly challenging because it requires development of expertise in a specific content area and in the general area of pedagogy. Completing a graduate course on teaching is a standard method for improving pedagogical knowledge and skills (McElroy & Prentice-Dunn, 2005; Prieto & Meyers, 1999; Prieto & Scheel, 2008). Courses on teaching allow individuals to develop basic skills, such as lecturing and leading discussion, but the development of knowledge about how people learn may be an even more important outcome. Basic and applied research indicates that there are fundamental ways that people learn, and teachers should be aware of these basic learning principles (APA, 2011; Worrell et al., 2010). Furthermore, teachers should utilize scientifically justified methods of instruction; they should

specifically design lessons to take advantage of the methods known to promote learning (APA, 2011; Bernstein et al., 2010). Teachers who approach pedagogy from a scientific perspective are referred to as scientist-educators (Bernstein et al., 2010). The most advanced type of scientist-educator integrates both knowledge of psychology content and knowledge of effective pedagogy into the design of learning experiences. Thus, model teachers are trained as scientist-educators who put pedagogical knowledge into practice.

Maintain current knowledge of pedagogical theory and practice. Bernstein and colleagues (2010) argued that development of teaching competency is an ongoing process for scientist-educators. Just as the science of psychology is constantly developing, pedagogy changes with the production of new knowledge. To illustrate, recent research placed doubt on the ability of learning styles to influence actual learning outcomes (Pashler, McDaniel, Rohrer, & Bjork, 2008) and on the ability of technology (e.g., course response systems) to improve learning in teaching methods that are already pedagogically sound (Anthis, 2011). Knowledge of these results could lead to dramatic shifts in teaching. Up-to-date pedagogical knowledge can even be considered an ethical responsibility. The APA (2010) ethics code instructs psychologists to "undertake ongoing efforts to develop and maintain their competence" (p. 5). Considering the evolving nature of pedagogy, model teachers engage in continuous efforts to learn about teaching.

Model teachers also possess pedagogical knowledge that goes beyond specific teaching techniques. Because the student population and psychology itself are increasingly diverse, model teachers seek to increase their multicultural competency in terms of knowledge and ability to engage in effective cross-cultural interactions (Littleford et al., 2010). In addition, rapidly changing technology means that teachers need to stay abreast of possible new ways to improve learning or accessibility through the use of technology (Millis et al.,

Table 2. Definitions, Sources of Evidence, and References of MTC of Instructional Methods.

Model Criteria	Suggested Sources of Evidence	References
<i>Pedagogy</i> (i.e., effectively employs instructional methods such as active or collaborative learning, or Socratic method, or direct instruction)	Sample lesson plans; Syllabi; Records of classroom observation (e.g., by peers, chairs, teaching center staff); Teaching awards	Buskist & Benassi (2012); Chickering & Gamson (1987); Davis (2009); Grocchia (2012); Vespia, Wilson-Doenges, Martin, & Radosevich (2012) Yost Hammer & Giordano (2012)
<i>Teaching Skills</i> (i.e., demonstrates excellence in basic classroom teaching skills such as effective communication, preparation, listening, respectfulness, technology competent)	Records of classroom observation (e.g., by peers, chairs, and teaching center staff); Student evaluations of teaching (i.e., teacher behavior checklist)	Buskist & Benassi (2012); Davis (2009); Grocchia (2012); Keeley, Furr, & Buskist (2010); Schaeffer, Epting, Zinn, & Buskist (2003)

Note. MTC = model teaching criteria.

2010). For example, incorporating the “flipped classroom” using online e-learning websites (e.g., Blackboard) to teach statistics can increase student learning (Wilson, 2013). Continuing education in pedagogy takes many forms. Model teachers read books and journals on education, attend teaching conferences, and participate in professional development opportunities on their own campuses.

Supporting evidence related to training. Evidence to support training competency can be broken down into two categories namely initial training and continuing education. Initial training can be documented with curriculum vitae (CV) and graduate transcripts. Subject knowledge can be seen in teachers’ graduate degree specialization and program of study. In addition, documentation of presentations or publications in a specific research area can demonstrate knowledge in areas that may not be represented by specific course work. Records of scholarship can also demonstrate that teachers have maintained expertise in their specific fields. Transcripts or certificates of completion are particularly important in documenting formal education in teaching methods; they should reflect courses taken in the teaching of psychology, education, and professional development more broadly (e.g., preparing future faculty). The CVs of model teachers also document efforts to continue their education. Evidence for continuing education can include attendance at conferences, completion of workshops, and participation in professional societies; such continuing education should relate to both subject-specific knowledge and pedagogical knowledge. For example, a teacher might show a pattern of rotating between attendance at conferences that are directly related to their area of scholarship and conferences that are dedicated to teaching.

Model Teachers Are Well Versed in Instructional Methods

The next set of criteria relate to what model teachers do in the classroom. Masterful classroom teaching is elusive

(Buskist et al., 2002). Two individuals may teach the same material using the same method but, nonetheless, have widely varying success. As such, there is not one instructional method or set of skills that defines a model teacher, but excellent classroom teaching does share some common features. The features can be divided into broad pedagogical approaches and specific teaching skills (see Table 2 for definitions, sources of evidence, and resources on instructional methods).

Demonstrate effective use of various teaching methods. Model teachers are characterized by their ability to use varied teaching techniques that actively engage students in the process of learning. A recent review of contemporary approaches to teaching synthesized their shared assumptions and methods (Slavich & Zimbardo, 2012). All of the approaches centered on the assumption that students must actively engage with material—be it through discussion, collaboration, problem solving, or reflection—in order to learn. Research supports the idea that good teachers actively engage students in the learning process. Numerous narrative reviews and meta-analyses support the effectiveness of methods such as active learning, collaborative learning, and problem-based learning (Dochy, Segers, Van den Bossche, & Gijbels, 2003; Johnson, Johnson, & Smith, 1998; Prince, 2004; Springer, Stanne, & Donovan, 1999; Walker & Leary, 2009). Model teachers actively engage students using these types of methods, but they also have the ability to do so using a diverse set of techniques. The APA’s (2011) *Quality Principles for Undergraduate Education* includes applying “a variety of learning principles and modes of learning” (p. 8). Furthermore, Dunn, McCarthy, Baker, Halonen, and Hill (2007) described the highest quality psychology faculty as those who engage “students broadly through varied effective and creative pedagogical strategies” (p. 662). Although it is impossible to stipulate the specific methods used by model teachers, their teaching approach is likely to be characterized by the use of a variety of techniques that enhance student engagement.

Demonstrate excellence in basic teaching skills. In addition to their broad pedagogical approach, model teachers also possess mastery of many specific teaching skills. There is some consensus on the skills and classroom stance of the best college teachers (Buskist et al., 2002; Epting, Zinn, Buskist, & Buskist, 2004; Keeley et al., 2006, 2010; Marsh, 1984; Svinivki & McKeachie, 2011). Model teachers are open, enthusiastic, and engaging. They tend to demonstrate excellent public speaking and communication skills. They are also conscientious, organized, and professional. Model teachers set high expectations, motivate students to meet those expectations, and exert control in order to manage classroom distractions. Although most teachers have a dominant pedagogical style—it is easy to think of prototypically masterful lecturers and discussion leaders—model teachers are flexible in their methods. Finally, model teachers are competent in the use of educational technology.

Supporting evidence related to instructional methods. Evidence to support the use of model instructional methods can be broken down into the following two categories: instructional materials and teacher evaluations. At the most basic level, syllabi can be used to demonstrate the use of engaging pedagogical techniques. Syllabi will reflect teachers' predominant methods of instruction through descriptions of the course, assignments, and course schedules. More detail can be provided by lesson plans, however. A lesson plan represents teachers' systematic outline of how learning will be facilitated in a specific class (Cerbin, 2012). Lesson plans, at a minimum, contain a list of learning objectives and the materials and methods the teacher will use to facilitate learning. They provide model teachers with the opportunity to highlight their intentional use of specific teaching techniques. Model teachers can also document sound pedagogy through the evaluations of others. Students are perhaps the most important evaluators, and teachers can provide evidence of specific skills by having students fill out the Teacher Behavior Checklist (Keeley et al., 2006) in addition to the forms that universities routinely administer. More generally, teaching awards stemming from student nominations suggest the mastery of teaching skills. Observations by experts in education are another important evaluation. These can include peers, administrators, and staff from campus teaching centers. Classroom observations can be followed by letters or completed observation rubrics documenting the teachers' mastery of basic teaching skills and the intentional use of specific pedagogical techniques.

Model Teachers Use Effective Assessment Processes

A sign of quality in higher education is systematic and intentional application of the assessment process (Association of American Colleges and Universities, 2008; D'Andrea, 1999; Harden, Crosby, & Davis, 1999; Huba & Freed, 2000; Osborne & Wagor, 2004; Palomba & Banta, 1999). Engagement in the assessment process is also considered a basic sign of quality in psychology programs (Dunn, McCarthy, Baker, Halonen, & Hill, 2007), and there appears to be a consensus in psychology

that assessment is an essential part of good teaching (Chew et al., 2010; Dunn et al., 2010; Landrum et al., 2010; McCarthy, Niederjohn, & Basack, 2011; Osborne & Wagor, 2004; Pusateri, Halonen, Hill, & McCarthy, 2009). At the level of the individual instructor, the scientist-educator approach to teaching follows the assessment process in the design of learning experiences. Scientist-educators begin by setting learning goals based on their understanding of the content and the learning process itself. Next, they simultaneously design the activities intended to teach learning goals and the methods by which they will assess students' success at achieving the goals. They then teach the content and assess learning outcomes. After reflection on the assessment results, scientist-educators return to their course design and make revisions designed to increase students' ability to reach the learning goals. Model teachers, being scientist-educators, engage in all of these steps in the assessment cycle as outlined subsequently. Table 3 features definitions, sources of evidence, and resources on assessment processes.

Establish learning goals and objectives. Model teachers clearly and objectively define the expected outcomes of their courses. Defining learning goals is considered a basic skill in the scientist-educator approach to teaching (Bernstein et al., 2010). Clear learning objectives allow teachers to align educational experiences and expected outcomes before the learning experiences begin; similarly, having learning objectives allows for an assessment plan to be set before learning occurs (McCarthy et al., 2011). Creating instructional objectives also has the advantage of being one of the characteristics of learning-centered education (Blumberg, 2009; Harden, 2002; Huba & Freed, 2000). A teacher-centered approach to education tends to focus on what the teacher does. A learning-centered approach focuses on what students learn, and the most important reason to utilize objectives is that they increase learning. A series of studies in the 1970s focused on the effects of providing objectives to students, and the clearest result of this research was that more learning occurred when students had objectives than when they simply reviewed material without objectives (Duchastel & Brown, 1974; Duell, 1974; Gagné & Rothkopf, 1975; Kaplan, 1976; Kaplan & Simmons, 1974; Rothkopf & Kaplan, 1972; Royer, 1977). Other interesting effects emerged as well. Specific objectives fostered more learning than general objectives (Kaplan, 1976; Rothkopf & Kaplan, 1972), use of objectives increased learning without significantly increasing studying time (Duchastel & Brown, 1974), and the objectives were effective for information presented in written or lecture format (Royer, 1977). Although this research was limited to the laboratory, it provides some empirical grounding for the claim that course objectives help achieve the ultimate goal of learning.

Assess student-learning outcomes. Although defining learning objectives assists students in learning, objectives are also essential as a guide to evaluating the success of learning experiences. Ideas to improve learning are like experimental hypotheses, and teachers cannot assume that their hypotheses about

Table 3. Definitions, Sources of Evidence, and References of MTC of Assessment Processes.

Model Criteria	Suggested Sources of Evidence	References
<i>Student learning goals and objectives</i> (i.e., establishes specific, measurable learning goals)	Syllabi; Lists of objectives for courses; Sample lesson plans	APA (2007); Bain (2004); Mager (1997); Slattery & Carlson (n.d.); Tomcho & Foels (2009)
Assessment of student learning outcomes	Sample assessment methods and results	Bernstein et al. (2010); Bubb (2012); Huba & Freed (2000); Pusateri, Halonen, Hill, & McCarthy (2009)
<i>Reflection on assessment</i> (i.e., utilizes data on learning outcomes and self-reflection on teaching performance to improve teaching and learning)	Examples of changes in syllabi, course material, lesson plans, or teaching methods illustrating change based on formal and informal assessment	APA (2011); Bernstein et al. (2010); Huba & Freed (2000); Korn (2012)
<i>Scholarship of teaching and learning</i> (i.e., disseminates information on teaching outcomes and innovations)	Professional publications, presentations, or reports showing scholarship of teaching; Local dissemination of knowledge about teaching (e.g., workshops, in-services, and professional development groups)	Bernstein et al. (2010); Buskist et al. (2008); Gurung & Schwartz (2012); McKinney (2013)
<i>Evaluation directness</i> (i.e., aligns evaluation of learning with learning goals)	List of learning objectives; Sample evaluations of student learning	APA (2007); Bain (2004); Gottfried, Johnson, & Vosmik (2009); Tomcho & Foels (2009)
<i>Evaluation utility</i> (i.e., Provides prompt, constructive feedback to students)	Student evaluations of teaching; Sample evaluations of student learning; Types of feedback (e.g., formative, summative)	Chickering & Gamson (1987); Gottfried et al. (2009)

Note. MTC = model teaching criteria.

learning are supported without consulting the results of a dependent measure (i.e., achieved learning objectives). The scientist-educator model requires teachers to connect learning goals to assessment results (Bernstein et al., 2010). Furthermore, the APA's (2011) *Quality Principles for Undergraduate Education* states that teachers should assess learning outcomes. Thus, model teachers assess students' abilities to meet course-learning objectives. Model teachers do not consider assessment extra work. They plan assessments before learning experiences begin and conduct them so that the results are useful for increasing future learning (Angelo & Cross, 1993; Huba & Freed, 2000; McCarthy et al., 2011).

Reflection and use of assessments. Scientist-educators not only collect assessment data but also reflect on assessment outcomes and use the results to improve learning experiences (Bernstein et al., 2010). The APA's (2011) *Quality Principles for Undergraduate Education* states that teachers should be consistently adjusting learning experiences to increase achievement of the outcomes. Thus, model teachers make changes to their courses based on assessment results. They do not conduct assessment simply because it is required; rather, they use assessment results in the process of continuous course improvement. In particular, model teachers go beyond using only summative assessments, data usually collected to inform tenure and promotion, to use formative assessments, assessments carried out during the course which can then immediately inform changes

in pedagogy (Blumberg, 2014). It is their goal to consistently increase the percentage of students who achieve the learning goals in their courses.

Disseminate information about teaching in the form of scholarship of teaching and learning (SoTL). The documentation of student learning outcomes is inherently tied to scholarship of teaching (Gurung & Landrum, 2012; Smith, 2008). Scholarship of teaching is the sharing of peer-reviewed teaching materials so that they are capable of informing others' teaching practices (Buskist, Carlson, Christopher, Prieto, & Smith, 2008; Smith, 2008). Sharing of results is a key element of SoTL. Thus, using scientifically verified teaching practices and improving teaching through research without publically sharing these findings would not qualify as the scholarship of teaching. There is consensus that model teachers engage in scholarship of teaching. The APA's (2011) *Quality Principles for Undergraduate Education* encourages scholarship of teaching at all institutions, not just at research-intensive or teaching-focused colleges. Furthermore, the scientist-educator model suggests that the highest levels of teaching include creation of new methods that improve the teaching of others (Bernstein et al., 2010).

Scholarship of teaching is also important in evaluating the potential of basic psychological principles—such as testing effects, spaced practice, and deep processing of information—to enhance learning in the classroom. Basic psychological concepts often have robust effects in the laboratory, but it is

up to the teachers to determine if the effects generalize to the psychology classroom (Worrell et al., 2010). For example, increasing memory through repeated testing stands out as a basic research finding with exceptional classroom potential (Roediger & Karpicke, 2006), but the positive effects of testing may be attenuated when applied in courses that are already designed using techniques that maximize learning (Saville, Pope, Lovaas, & Williams, 2012). Overall, whether they are validating their own new methods or evaluating applications for basic research, model teachers use scholarship of teaching to impact not only their students but other teachers as well.

Align evaluations of learning with learning objectives. Evaluation is related to, but not synonymous with, assessment. Generally, evaluation occurs when the quality of a specific performance is judged, and for most teachers evaluation results in the assignment of a specific grade. Thus, evaluation does not constitute a process like assessment, but it does stem from the desire to document students' abilities to achieve learning objectives. For model teachers, evaluation of students is aligned with course-learning objectives (Palomba & Banta, 1999; Race, Brown, & Smith, 2005). Evaluation alignment is useful for both teachers and students. For teachers, alignment is part of course planning and makes it clear what should be evaluated and how it should be evaluated. To illustrate, knowledge goals might be evaluated using tests, and application goals might be evaluated using papers. For students, alignment of evaluations with objectives helps focus efforts to learn on the goals of a course, and a grading system that is coherent and predictable is inherently fairer than the one that is relatively more capricious.

Provide students with prompt, constructive feedback on learning. Evaluations are an opportunity to assign grades to students' work, but they also represent a chance to give feedback that can lead to improvements in student learning. Good teachers provide useful feedback to students (Chickering & Gamson, 1987; Keeley et al., 2006). One component of useful feedback is how promptly and frequently teachers provide it to students. Feedback that comes too late or too infrequently to influence student learning is not useful (Bransford, Brown, & Cocking, 2000). The content of feedback is also important because vague or inaccurate feedback is not useful no matter how promptly or frequently teachers provide it. Model teachers provide students with feedback that fosters improvement in learning or performance; typically, this requires more detail than just a grade. When appropriate to an assignment, model teachers give students feedback using rubrics, which are a particularly learning-focused approach to evaluation (Huba & Freed, 2000). Rubrics outline varying levels of proficiency for different aspects of an assignment (e.g., poor, acceptable, and excellent levels of APA-style formatting). From this, students know the learning or skills they are expected to exhibit, and feedback in the form of a scored rubric allows them to know what specific aspects of their performance need improvement (Andrade, 2005). It is also important to note that rubrics can possess considerable reliability and validity (Stellmack, Konheim-Kalkstein, Manor, Massey, & Schmitz,

2009), which is relevant to teachers' and students' concerns about fairness.

Supporting evidence related to the assessment process. Activities included in the MTC as assessment-related are quite varied; they include everything from classroom assignments to scholarship. Similarly, the evidence used to document engagement in the assessment process is diverse, but it can be divided up into the basic assessment process, evaluation of students, and scholarship. The basic assessment process involves setting learning objectives, facilitating learning experiences, assessing student learning outcomes, and reaction to the outcomes. Each step in this process can be documented. Objectives can be documented in syllabi and explicit lists of objectives for courses (Boysen, 2012). Lesson plans also typically outline learning objectives and the methods used for achieving the objectives. Evidence for the assessment of learning outcomes can be documented with summaries of assessment methods and results. Pusateri, Halonen, Hill, and McCarthy' (2009) assessment guide provides numerous illustrations of the appropriate methods for assessing various objectives that are common to psychology education. Teachers might also create embedded assessment plans; these connect specific objectives and the course assignments used to assess if students have achieved the objective (McCarthy et al., 2011). For example, knowledge-based objectives might be assessed through tests, and writing objectives might be assessed with an APA-style writing rubric (e.g., Stellmack et al., 2009). Assessment ideally leads to improvement in teaching and learning; therefore, evidence of changes based on assessment results is essential. Changes might be demonstrated through examples of evolving syllabi, course content, and lesson plans.

MTC related to evaluation may emerge as part of evidence documenting the broader assessment process, but there are specific ways to document evaluation directness and utility. In terms of directness, teachers might explicitly illustrate how evaluation tools such as tests and grading rubrics relate to their list of course-learning objectives. Anonymous samples of evaluations of actual students who did and did not meet the learning objectives may also serve as evidence. For example, if the learning objective is for students to be able to format articles in APA style, evidence for evaluation directness might consist of completed rubrics along with articles that received high and low scores. Evaluations of learning should also be useful to students, and the aforementioned methods can serve as documentation of directness. However, student evaluations of teaching often have items related to usefulness of grading that might be submitted as evidence.

SoTL is the final assessment-related criterion. The key to any evidence of SoTL is dissemination of knowledge gained about teaching. Traditional forms of peer-reviewed research represent the strongest evidence for scholarship. However, evidence of local dissemination is also meaningful. Teachers may direct workshops, conduct in-services, or give presentations on their own campuses. The key idea is that model teachers can demonstrate that their gained knowledge about effective

Table 4. Definitions, Sources of Evidence, and References of MTC of Constructing Syllabi.

Model Criteria	Suggested Sources of Evidence	References
<i>Course transparency</i> (i.e., provides clear and complete information about the course in the syllabus)	Course Assessments; Course Policies; Course Goals; Course Schedule	Slattery & Carlson (2005); University of Minnesota (n.d.)
<i>Course planning</i> (i.e., demonstrates intentional selection of activities, evaluations, and assignments to achieve course goals)	Syllabi with course schedules; Sample lesson plans	Slattery & Carlson (2005); Slattery & Carlson (n.d.); University of Minnesota (n.d.)

Note. MTC = model teaching criteria.

teaching is not held in isolation and that it has the potential to influence the practice of other educators.

Model Teachers Construct Exemplary Syllabi

A syllabus represents the teacher who created it. Students understand this relation between syllabus and teacher, and they make judgments about teachers based on syllabi characteristics (Saville, Zinn, Brown, & Marchuk, 2010). Syllabi offer an initial opportunity to gain the trust of students by framing a course in terms of a student-centered opportunity for learning rather than just a list of assignments (Bain, 2004). High-quality, peer-reviewed syllabi can be found on the Project Syllabus website (<http://teachpsych.org/otrp/syllabi/index.php>), and they demonstrate that good syllabi do not follow a single style or format. Despite this variety, what the syllabi of model teachers do have in common are high levels of course transparency and planning (see Table 4 for definitions, sources of evidence, and resources on syllabus construction). Syllabi can be seen as a promise made to students (Bain, 2004). Specifically, model syllabi establish a set of abilities that students will have the opportunity to develop, they explain to students the process by which they can develop the abilities, and they establish the benchmarks by which the teacher and student will evaluate progress as it relates to the abilities. Syllabi constructed from this promissory standpoint serve as invitation for students to engage in the learning process with the teacher.

Provide clear and complete syllabi. Although syllabi are as unique as the teachers who create them, there are some standards that model teachers exhibit when constructing a course syllabus (Slattery & Carlson, n.d., 2005). Syllabi serve as permanent references for information that students will need to know about a course, such as instructor contact information, policies, and learning goals. Syllabi also function as an outline for a course and should offer students a plan for what will occur across the entire semester. Students should be able to determine the course expectations, evaluation methods, and schedule using the syllabus. Finally, syllabi serve as an agreement between teacher and student; thus, ethically responsible teachers construct accurate syllabi and teach in a manner consistent with their stated course plan (APA, 2010).

Plan specific activities to achieve learning objectives. Model teachers' syllabi reflect thoughtful planning about the learning that should occur in a course, the methods used to facilitate learning, and the methods used to assess learning. The syllabus is where the planning of learning objectives meets actual course content. Syllabi should communicate high expectations but also outline methods by which expectations will be met (Slattery & Carlson, n.d., 2005). Both in-class and out-of-class work should clearly relate to learning goals, and each learning goal for a course should be connected to a learning experience. Furthermore, each learning goal should be connected to a potential method of assessment (McCarthy et al., 2011). Although some of the specifics of course planning may not be included in the syllabi distributed to students, the syllabi of model teachers represent the final product of this deliberate and thoughtful alignment of goals, learning activities, and assessment.

Supporting evidence related to syllabi. Evidence for syllabi quality is largely self-evident. The transparency of a course is shown by the detail provided to students in the syllabi regarding objectives, assignments, policies, and schedules. Evidence is also needed for intentional course planning. Teachers might demonstrate mastery of planning through their course schedules. Sample lesson plans and assignment descriptions can show that a teacher selects varied teaching methods to fit the specific learning objective rather than relying on just one method.

Model Teachers' Course Content

Psychology is an increasingly diverse science, and teachers of psychology bring a wide variety of backgrounds and perspectives to the classroom. As such, the specific content of individual courses is likely to resist standardization. Despite the diversity of psychology as a field of study, model teachers of all backgrounds and teaching specialties infuse the broad educational themes outlined subsequently into their courses. For definitions, sources of evidence, and resources on course content, see Table 5.

Establish learning objectives reflecting the scientific foundation of psychology. Scientific knowledge is at the core of the

Table 5. Definitions, Sources of Evidence, and References of MTC of Content.

Model Criteria	Suggested Sources of Evidence	References
<i>Scientific literacy</i> (i.e., establishes learning goals that reflect the scientific foundation of psychology and implements best practices to achieve learning goals)	Syllabi; Assignments; Assessments; Class Activities	APA (2007); Dunn, McCarthy, Baker, Halonen, & Hill (2007)
<i>Psychology knowledge Base and Application</i> (i.e., establishes learning goals that appropriately reflect the diversity of perspectives and breadth of content)	Syllabi; Sample lesson plans; Class activities; Class assignments; Class assessments	APA (2007); Dunn et al. (2007); Rominger & Kolesar (2008)
<i>Liberal arts skills</i> (i.e., fosters development of basic skills among students—e.g., writing, critical thinking, information literacy, collaboration, and speaking)	Syllabi; Sample lesson plans; Sample student work	APA (2007); Dunn et al. (2007)
<i>Values in psychology</i> (i.e., infuses ethical and diversity issues throughout teaching)	Diversity in syllabi; Ethics in syllabi; Sample lesson plans	APA (2007); Dunn et al. (2007); Handelsman (2005, 2011); Phelps (2012)

Note. MTC = model teaching criteria.

undergraduate psychology curriculum (Dunn et al., 2010). Both the APA's undergraduate major guidelines and principles of quality indicate that teachers should emphasize the scientific foundation of psychology (APA, 2007, 2011, 2013). Furthermore, Dunn and colleagues' (2007) quality benchmarks for undergraduate programs characterized the best departments as training students in the skills of scientists and as requiring a research experience for all students. Taken together, these prescriptions leave no room for teachers to ignore the science behind psychology. Thus, model teachers represent psychology as a science in all of their courses and set learning goals related to the scientific foundation of psychology. Depending on the course, learning goals might reflect the actual methods of psychological science or knowledge of the ways in which psychological concepts and applications are a product of the scientific method.

Establish learning objectives reflecting the breadth of psychology theories and applications. The APA (2007) undergraduate major guidelines outline specific learning goals as they relate to various areas of psychology. These goals include both the basic science of psychology and its areas of application. Calls for a core psychology curriculum echo these central areas of basic and applied knowledge (Dunn et al., 2010). Furthermore, the quality benchmarks state that the best undergraduate curricula offer multiple, complementary perspectives on psychology (Dunn et al., 2007). Model teachers use the core, accepted knowledge base of psychology as their source for learning objectives. However, they also attempt to impart to students the diversity of perspectives and breadth of content in psychology.

Foster student development of basic liberal arts skills. Psychology is an excellent example of a liberal arts undergraduate major. Students in psychology master subject-specific content, but the

psychology curriculum should also train students more broadly to communicate effectively, work collaboratively, and think critically. The APA's (2007) undergraduate major goals explicitly outlines these liberal arts goals. In terms of communication skills, undergraduates should learn how to speak and write clearly. Furthermore, they should be able to collaborate, which requires communication and interpersonal skills (APA, 2007, 2013; Dunn et al., 2007; McGovern et al., 2010). Given these standards for providing psychology majors with a liberal arts education, model teachers incorporate liberal arts skills as learning goals in their courses. They also provide students with opportunities to practice these skills through such activities as written assignments, discussion, public speaking, and collaborative work.

Psychology education should also foster critical thinking. People, including psychology majors, hold many inaccurate beliefs about psychology (Lilienfeld, Lynn, Ruscio, & Beyerstein, 2010). Furthermore, the ease with which information—accurate and inaccurate—can be accessed on the Internet has increased the need for critical analysis of sources and evidence. These facts make critical thinking, perhaps, the most important skill that students can learn in psychology. In recognition of this fact, critical thinking is one of the fundamental learning goals for the psychology major (APA, 2007), and basic psychological literacy requires healthy skepticism in problem solving and evaluation of information (McGovern et al., 2010). In addition, the APA's (2011) quality principles clearly states that critical thinking should be fostered continuously throughout the undergraduate curriculum. Therefore, model teachers set learning goals related to critical thinking in their courses. They also use established methods when fostering the disposition and cognitive skills that characterize critical thinkers (e.g., Halpern, 1998; King, 1995; Wade, 1995; Yanchar & Slife, 2004).

Table 6. Definitions, Sources of Evidence, and References of MTC of Students Evaluations of Teaching.

Model Criteria	Suggested Sources of Evidence	References
<i>Student feedback</i> (i.e., solicits formative and summative feedback from students on teaching effectiveness)	Summaries of students evaluations; Teaching awards	Angelo & Cross (1993); Keeley (2012); Slattery & Carlson (2005)
<i>Reflection on student feedback</i> (i.e., utilizes formative and summative student evaluations of teaching to improve teaching and learning)	Examples of changes in syllabi, course material, lesson plans, or teaching methods illustrating change based on evaluations	Bernstein et al. (2010); Brookfield (1995)

Infuse ethical and diversity issues throughout teaching. Along with scientific inquiry, diversity and ethics are among the core values of psychology as a discipline. In that pursuit, the APA's (2007) guidelines for the undergraduate major include the ability to "recognize and respect human diversity" (p. 17). Thus, teachers should foster respect for and recognition of diversity for several reasons beyond the prescriptions of the APA (Chew et al., 2010; Landrum et al., 2010; Littleford et al., 2010). Diversity is about individual differences, which is a core concept in psychological science. In addition, with the increasingly diverse American population, teachers have a responsibility to address the diversity of their students and to prepare them to function in a diverse world. Diversity is a relevant topic for all psychology courses, and this means that explicit learning goals related to diversity should be distributed across the undergraduate curriculum (APA, 2003, 2011; Dunn et al., 2007, 2010). Considering the already established and ever-increasing importance of diversity, model teachers infuse learning goals related to diversity, broadly defined, into their courses. Their goals reflect a commitment to developing students' multicultural knowledge and awareness (APA, 2003). Diversity goals can be taught across the curriculum and are not a topic reserved for specialized multicultural or applied courses (e.g., Borshuk, 2006; Littleford et al., 2010; Trimble, Stevenson, & Worell, 2003). Thus, model teachers of all teaching specialties address diversity content in their courses.

Behaving ethically is another value that is central to psychology. One of the APA's learning outcomes for the undergraduate major is to "Recognize the necessity of ethical behavior in all aspects of the science and practice of psychology" (APA, 2007, p. 17). More specifically, students should have a basic grasp of the APA ethics code, and they should follow the APA ethics code when conducting research. Just as with diversity, programs should infuse ethics throughout the curriculum (Dunn et al., 2007, 2010), and this includes ethics as they relate to diversity specifically (APA, 2011). Given the importance of ethical behavior to the profession of psychology, model teachers include ethical issues in their courses. Their courses reflect the relation of ethics to research, practice, and diversity; and they introduce students to the APA code of ethics when it relates to the course topic (e.g., research methods and clinical practice). Furthermore, model teachers not only instruct on the basics of ethics, they also stand as models of ethical behavior (APA, 2011).

Supporting evidence related to content. Evidence for teachers' coverage of essential content can come from materials at all

levels of course structure and implementation. Most broadly, learning objectives and course subjects listed in the syllabi demonstrate the goal to include essential content. Lesson plans and assignments can demonstrate the actual methods used to achieve objectives related to the essential content. Finally, results of assessments and samples of students' work can demonstrate the achievement of learning objectives related to essential content.

Student Evaluation of Teaching

Student evaluations of teaching are a contentious subject in higher education (d'Apollonia & Abrami, 1997; Greenwald, 1997). Although there is some disagreement about their appropriate interpretation and use, student perceptions are a measure of teaching success. Recognizing this, model teachers solicit and utilize feedback from their students (see Table 6 for definitions, sources of evidence, and resources on student evaluations of teaching).

Solicit formative and summative student feedback on teaching. Standardized student evaluations are an accepted measure of teaching effectiveness. Indications of their validity include their ability to predict student learning and evaluations by other stakeholders, such as peers and administrators (Marsh, 1983, 1984; Marsh & Roche, 1997). There is some variance in student evaluations that makes them less than perfect measurements of teaching effectiveness (e.g., their small correlation with grades and class size), but they may provide meaningful data about students' perceptions of teachers. As such, model teachers administer summative student evaluations of teaching at the conclusion of their courses. In addition, model teachers do not wait until the end of the semester to receive their first student feedback; they also solicit formative evaluations from students during the semester. Formative evaluations may not be standardized assessment tools, and classroom assessment techniques as simple as having students write for 1 min about what they learned in class can provide useful feedback from students (Angelo & Cross, 1993).

Utilize student evaluations of teaching to improve teaching and learning. Research and debate about student evaluations center on their utility in making summative judgments about teacher performance, and this often obscures their use as a tool for the improvement of teaching. Student evaluations of teaching have

become so ingrained into the fabric of higher education that the research undergirding their use receives little attention. Research indicates that receiving and reflecting on student evaluations actually improves teaching (Marsh & Roche, 1997). For example, in one study, random samples of teachers either received feedback using midterm student evaluations or did not receive feedback: Teachers who received feedback also spent time reflecting on their evaluations. At the end of the semester, students of the teachers who reflected on midterm feedback, compared to students of the teachers who did not receive feedback, tended to assign better end-of-semester ratings on teaching evaluations, earn better grades, and have more positive attitudes about the course subject (Overall & Marsh, 1979). Several meta-analyses have provided similarly supportive results for the utility of reflecting on student evaluations (Lipsey & Wilson, 1993). Furthermore, the effect sizes found in the meta-analyses compare favorably to many other accepted psychological and educational interventions. Thus, model teachers do more than solicit student feedback, they reflect on that feedback and use it to make appropriate changes to their instructional methods.

Supporting evidence related to student evaluations of teaching. Model teachers should be able to demonstrate regular solicitation of and reflection on student feedback. Evidence can consist of summaries of end-of-the-semester official teaching evaluations, but will, ideally, also include summaries of informal feedback gathered from students throughout the semester. Model teachers not only gather data on student perceptions, they make adjustments based on feedback. As such, model teachers should be able to provide specific examples of feedback-based changes in their syllabi, course materials, lesson plans, or general teaching strategies.

Conclusions and Future Directions

The purpose of this article was to outline the characteristics of model teachers of psychology. The MTC reflect the extensive knowledge base concerning teaching effectiveness in higher education, particularly in psychology. However, the model is intended to be more than a synthesis of existing research. Ideally, the use of the model should promote faculty development, which in turn improves student learning. Discussion of model teaching often focuses on well-known “master teachers” who possess legendary prowess inside of the classroom (Buskist et al., 2002). Achievement of “master teaching” is an admirable goal to aim for; but the knowledge, skills, and practices outlined in this document provide direction and focus to those seeking to become better teachers.

We have proposed a model for teaching criteria that can be used as a resource by teachers at all levels and from various types of institutions. In each area of the model, we provide a rationale for the inclusion of each criterion along with suggestions for documenting evidence. There are three major strengths to this model. It can (1) provide a multifaceted framework for understanding, documenting, and supporting teaching excellence;

(2) prompt reflection and may serve as a developmental tool for faculty across the stages of their careers; and (3) serve as a useful guide for faculty approaching tenure and promotion.

The elements of this model reflect the extensive knowledge base on teaching effectiveness in higher education, particularly in psychology. However, the model is intended to be more than a synthesis of existing research. Ideally, the use of the model should promote faculty development, which in turn improves student learning. As Rutz and colleagues (2012) note, there is little research directly testing the assumption that faculty development opportunities improve teaching and student learning. Future research will need to evaluate the effectiveness of the MTC as a resource for faculty development as well as the potential impact it has on teaching practices and student outcomes.

The use of the MTC to improve teaching will ideally occur individually and collectively. Individual teachers, both novice and experienced, can use the list of model characteristics as a self-evaluation checklist. Based on their self-evaluations, teachers can pursue professional development opportunities that will allow them to check off more model criteria the next time they self-evaluate. Although some teachers are likely to pursue professional development on their own, collective use of the model criteria may be necessary to ensure large-scale improvement of teaching. The use of the MTC in the training of psychology teachers could ease their development of basic teaching criteria. As outlined above, students benefit from learning objectives, and the model criteria provide a set of goals on which graduate students may base their pedagogical training. Collective use could also occur if psychology departments adopted the MTC as an agreed upon definition of quality teaching. The MTC could form the base of departmental standards for evaluation of reappointment, tenure, and promotion.

Adoption of the MTC as a standard for evaluation is a complex and possibly controversial topic. Good teaching occurs in many guises, individual teachers and institutions have varied educational goals, and masterful teaching appears to include certain interpersonal characteristics that are difficult to intentionally develop. For these reasons, and many others, no list of characteristics can serve as the ultimate definition of teaching competence. Nonetheless, the criteria outlined in this article represent a good starting point in the process of describing the practices of high-quality psychology teachers. As is often the case in scholarly endeavors, our attempt to define model teaching leads to as many questions as it does answers. How many criteria does a teacher need to exhibit in order to be considered competent? Do people recognized as master teachers exhibit significantly more of these criteria than individuals who are simply “good” teachers? Do some criteria influence student learning more than others? Does adoption of the criteria as a departmental standard lead to better teaching and learning? These are all excellent questions that are as yet unanswered. Although there are many things that are unknown about the model criteria, we are confident that teachers who honestly self-evaluate using the criteria and conscientiously pursue consistency with the characteristics will be improved by the process.

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References

- American Psychological Association. (2003). Guidelines on multicultural education, training, research, practice, and organizational change for psychologists. *American Psychologist*, *58*, 377–402. doi:10.1037/0003-066X.58.5.377
- American Psychological Association. (2007). *APA guidelines for the undergraduate psychology major*. Washington, DC: Author. Retrieved from <http://www.apa.org/ed/resources.html>
- American Psychological Association. (2010). *Ethical principles of psychologists and code of conduct*. Retrieved from <http://www.apa.org/ethics/code/principles.pdf>
- American Psychological Association. (2011). *Principles for quality undergraduate education in psychology*. Washington, DC: Author. Retrieved from <http://www.apa.org/education/undergrad/principles.aspx>
- American Psychological Association. (2013). *APA guidelines for the undergraduate psychology major: Version 2.0*. Washington, DC: Author. Retrieved from <http://www.apa.org/ed/precollege/undergrad/index.aspx>
- Andrade, H. G. (2005). Teaching with rubrics: The good, the bad, and the ugly. *College Teaching*, *53*, 27–31. doi:10.3200/CTCH.53.1.27-31
- Angelo, T. A., & Cross, K. P. (1993). *Classroom assessment techniques: A handbook for college teachers*. Ann Arbor, MI: National Center for the Improvement of Postsecondary Teaching and Learning.
- Anthis, K. (2011). Is it the clicker, or is it the question? Untangling the effects of student response system use. *Teaching of Psychology*, *38*, 189–193. doi:10.1177/0098628311411895
- Association of American Colleges and Universities. (2008). *Our students' best work: A Framework for accountability worthy of our mission* (2nd ed.). Washington, DC: Author.
- Bain, K. (2004). *What the best college teachers do*. Cambridge, MA: Harvard University Press.
- Bernstein, D., Addison, W. E., Altman, C., Hollister, D., Komaraju, M., Prieto, L., & Shore, C. (2010). Toward a scientist-educator model of teaching psychology. In D. F. Halpern (Ed.), *Undergraduate education in psychology: A blueprint for the future of the discipline* (pp. 29–45). Washington, DC: American Psychological Association.
- Blumberg, P. (2009). *Developing learner-centered teaching: A practical guide for faculty*. San Francisco, CA: Jossey-Bass.
- Blumberg, P. (2014). *Assessing and improving your teaching: Strategies and rubrics for faculty growth and student learning*. San Francisco, CA: Jossey-Bass.
- Borshuk, C. (2006). Introducing diverse perspectives into research methods classes. *Teaching of Psychology*, *33*, 256–258. doi:10.1207/s15328023top3304_7
- Boyer, E. L. (1990). *Scholarship reconsidered: Priorities of the professoriate*. Princeton, NJ: Carnegie Endowment for the Advancement of Teaching.
- Boysen, G. A. (2011). The prevalence and predictors of teaching courses in doctoral psychology programs. *Teaching of Psychology*, *38*, 49–52. doi:10.1177/0098628310390850
- Boysen, G. A. (2012). *A guide to writing learning objectives for teachers of psychology*. Society for the Teaching of Psychology Office of Teaching Resources in Psychology Online. Retrieved from <http://teachpsych.org/otrp/resources/index.php?category=Outcomes>
- Bransford, J. D., Brown, A. L., & Cocking, R. R. (Eds.). (2000). *How people learning: Brain, mind, experience, and school*. Washington, DC: National Academy Press.
- Brookfield, S. D. (1995). *Becoming a critically reflective teacher*. San Francisco, CA: Jossey-Bass.
- Bubb, R. (2012). Assessing student learning. In W. Buskist & V. A. Benassi (Eds.), *Effective college and university teaching* (pp. 115–124). Los Angeles, CA: Sage.
- Buskist, W., & Benassi, V. A. (Eds.). (2012). *Effective college and university teaching: Strategies and tactics for the new professoriate*. Thousand Oaks, CA: Sage Publications, Inc.
- Buskist, W., Carlson, J. R., Christopher, A. N., Prieto, L., & Smith, R. A. (2008). Models and exemplars of scholarship in the teaching of psychology. *Teaching of Psychology*, *35*, 267–277. doi:10.1080/00986280802373908
- Buskist, W., Sikorski, J., Buckley, T., & Saville, B. K. (2002). Elements of master teaching. In S. F. Davis & W. Buskist (Eds.), *The teaching of psychology: Essays in honor of Wilbert J. McKeachie and Charles L. Brewer* (pp. 27–39). Mahwah, NJ: Lawrence Erlbaum.
- Buskist, W., Tears, R. S., Davis, S. F., & Rodrigue, K. M. (2002). The teaching of psychology course: Prevalence and content. *Teaching of Psychology*, *29*, 140–142. doi:10.1207/S15328023TOP2902_13
- Cerbin, W. (2012). *Lesson study*. Arlington, VA: Stylus.
- Chew, S. L., Bartlett, R. M., Dobbins, J. E., Hammer, E. Y., Kite, M. E., Loop, T. F., . . . Rose, K. C. (2010). A contextual approach to teaching: Bridging methods, goals, and outcomes. In D. F. Halpern (Ed.), *Undergraduate education in psychology: A blueprint for the future of the discipline* (pp. 95–112). Washington, DC: American Psychological Association.
- Chickering, A. W., & Gamson, Z. F. (1987). Seven principles for good practice in undergraduate education. *AAHE Bulletin*, *39*, 3–7.
- d'Apollonia, S., & Abrami, P. C. (1997). Navigating student ratings of instruction. *American Psychologist*, *52*, 1198–1208. doi:10.1037/0003-066X.52.11.1198
- D'Andrea, V. (1999). Organizing teaching and learning: Outcomes-based planning. In H. Fry, S. Ketteridge, & S. Marshall (Eds.), *A handbook for teaching and learning in higher education: Enhancing academic practice* (pp. 41–57). London, England: Kogan Page.
- Davis, B. G. (2009). *Tools for teaching* (2nd ed.). San Francisco, CA: Jossey-Bass.
- Dochy, F., Segers, M., Van den Bossche, P., & Gijbels, D. (2003). Effects of problem-based learning: A meta-analysis. *Learning and Instruction*, *13*, 533–568. doi:10.1016/S0959-4752(02)00025-7

- Duchastel, P. C., & Brown, B. R. (1974). Incidental and relevant learning with instructional objectives. *Journal of Educational Psychology, 66*, 481–485. doi: 10.1037/h0036743
- Duell, O. P. (1974). Effect of type of objective, level of test questions, and the judged importance of tested materials upon posttest performance. *Journal of Educational Psychology, 66*, 225–323. doi:10.1037/h0036272
- Dunn, D. S., Brewer, C. L., Cautin, R. L., Gurung, R. R., Keith, K. D., McGregor, L. N., . . . Voigt, M. J. (2010). The undergraduate psychology curriculum: Call for a core. In D. F. Halpern (Ed.), *Undergraduate education in psychology: A blueprint for the future of the discipline* (pp. 47–61). Washington, DC: American Psychological Association.
- Dunn, D. S., McCarthy, M. A., Baker, S., Halonen, J. S., & Hill, G. W. (2007). Quality benchmarks in undergraduate psychology programs. *American Psychologist, 62*, 650–670. doi:10.1037/0003-066X.62.7.650
- Epting, L., Zinn, T. E., Buskist, C., & Buskist, W. (2004). Student perspectives on the distinction between ideal and typical teachers. *Teaching of Psychology, 31*, 181–183. doi:10.1207/s15328023top3103_5
- Gagné, E. D., & Rothkopf, E. Z. (1975). Text organization and learning goals. *Journal of Educational Psychology, 67*, 445–450. doi:10.1037/h0076617
- Gottfried, G. M., Johnson, K. E., & Vosmik, J. R. (2009). *Assessing student learning: A collection of evaluation tools*. Washington, DC: Society for the Teaching of Psychology.
- Greenwald, A. G. (1997). Validity concerns and usefulness of student ratings of instruction. *American Psychologist, 52*, 1182–1186. doi:10.1037/0003-066X.52.11.1182
- Groccia, J. E. (2012). A model for understanding university teaching and learning. In J. E. Groccia, M. A. T. Alsudairi, & W. Buskist (Eds.), *Handbook of college and university teaching: A global perspective* (pp. 2–15). Los Angeles, CA: Sage.
- Gurung, R. A. R., & Landrum, R. E. (2012). Using SoTL to improve learning outcomes. In J. Groccia, M. Alsudairy, & W. Buskist (Eds.), *Handbook of college and university teaching: Global perspectives* (pp. 29–44). Thousand Oaks, CA: Sage.
- Gurung, R. A. R., & Schwartz, B. M. (2012). *Optimizing teaching and learning: Practicing pedagogical research*. Oxford, England: John Wiley and Sons.
- Halpern, D. F. (1998). Teaching critical thinking for transfer across domains: Disposition, skills, structure training, and metacognitive monitoring. *American Psychologist, 53*, 449–455. doi:10.1037/0003-066X.53.4.449
- Handelsman, M. M. (2005). Teaching ethics in introductory psychology. In D. S. Dunn & S. L. Chew (Eds.), *Best practices for teaching introduction to psychology* (pp. 159–175). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Handelsman, M. M. (2011). First-class first classes. In R. L. Miller, E. Amsel, B. M. Kowalewski, B. C. Beins, K. D. Keith, & B. F. Peden (Eds.), *Promoting student engagement (Vol 1): Programs, techniques and opportunities* (pp. 211–214). Washington, DC: Society for the Teaching of Psychology.
- Harden, R. M., Crosby, J. R., & Davis, M. H. (1999). AMEE Guide No. 14: Outcome-based education: Part 1 – An introduction to outcome-based education. *Medical Teacher, 21*, 7–14. doi:10.1080/01421599979969
- Harden, R. M. (2002). Learning outcomes and instructional objectives: Is there a difference? *Medical Teacher, 24*, 151–155. doi:10.1080/0142159022020687
- Huba, M. E., & Freed, J. E. (2000). *Learner-centered assessment on college campuses: Shifting the focus from teaching to learning*. Boston, MA: Allyn and Bacon.
- Ismail, E. A., Buskist, W., & Groccia, J. E. (2012). Peer review of teaching. In M. E. Kite (Ed.), *Effective evaluation of teaching: A guide for faculty and administrators*. Retrieved from <http://teachpsych.org/ebooks/evals2012/index.php>
- James, W. (1925). *Talks to teachers on psychology: And to students on some of life's ideas*. New York, NY: Henry Holt.
- Johnson, D. R., Johnson, R. T., & Smith, K. A. (1998). Cooperative learning returns to college: What evidence is there that it works? *Change: The Magazine of Higher Learning, 30*, 26–35. doi:10.1080/00091389809602629
- Kaplan, R. (1976). Effects of grouping and response characteristics of instructional objectives on learning from prose. *Journal of Educational Psychology, 68*, 424–430. doi:10.1037/0022-0663.68.4.424
- Kaplan, R., & Simmons, F. G. (1974). Effects of instructional objectives used as orienting stimuli or as summary/review upon prose learning. *Journal of Educational Psychology, 66*, 614–622. doi:10.1037/h0036931
- Keeley, J., Furr, R. M., & Buskist, W. (2010). Differentiating psychology students' perceptions of teachers using the teacher behavior checklist. *Teaching of Psychology, 37*, 16–20. doi:10.1080/00986280903426282
- Keeley, J., Smith, D., & Buskist, W. (2006). The teacher behavior checklist: Factor analysis of its utility for evaluating teaching. *Teaching of Psychology, 33*, 84–91. doi:10.1207/s15328023top3302_1
- Keeley, J. W. (2012). Course and instructor evaluation. In W. Buskist & V. A. Benassi (Eds.), *Effective college and university teaching* (pp. 173–180). Los Angeles, CA: Sage.
- King, A. (1995). Inquiring minds really do want to know: Using questioning to teach critical thinking. *Teaching of Psychology, 22*, 13–17. doi:10.1207/s15328023top2201_5
- Korn, J. H. (2012). Writing and developing your philosophy of teaching. In W. Buskist & V. A. Benassi (Eds.), *Effective college and university teaching* (pp. 99–106). Los Angeles, CA: Sage.
- Landrum, R. E., Beins, B. C., Bhalla, M., Brakke, K., Brihl, D. S., Curl-Langager, R. M., . . . Van Kirk, J. J. (2010). Desired outcomes of an undergraduate education in psychology from departmental, student, and societal perspectives. In D. F. Halpern (Ed.), *Undergraduate education in psychology: A blueprint for the future of the discipline* (pp. 145–160). Washington, DC: American Psychological Association.
- Lilienfeld, S. O., Lynn, S., Ruscio, J., & Beyerstein, B. L. (2010). *50 great myths of popular psychology: Shattering widespread misconceptions about human behavior*. Oxford, England: Wiley-Blackwell.
- Lipsey, M., & Wilson, D. (1993). The efficacy of psychological, educational, and behavioral treatment. Confirmation from meta-

- analysis. *American Psychologist*, 48, 1181–1209. doi:10.1037/0003-066X.48.12.1181
- Littleford, L. N., Buskist, W., Frantz, S. M., Galvan, D. B., Henderson, R. W., McCarthy, M. A., . . . Puente, A. E. (2010). Psychology students today and tomorrow. In D. F. Halpern (Ed.), *Undergraduate education in psychology: A blueprint for the future of the discipline* (pp. 63–79). Washington, DC: American Psychological Association.
- Mager, R. F. (1997). *Preparing instructional objectives* (3rd ed.). Atlanta, GA: Center for Effective Performance.
- Marsh, H. W. (1983). Multidimensional ratings of teaching effectiveness by students from different academic settings and their relation to student/course/instructor characteristics. *Journal of Educational Psychology*, 75, 150–166. doi:10.1037/0022-0663.75.1.150
- Marsh, H. W. (1984). Students' evaluations of university teaching: dimensionality, reliability, validity, potential biases, and utility. *Journal of Educational Psychology*, 76, 707–754. doi:10.1037/0022-0663.76.5.707
- Marsh, H. W., & Roche, L. A. (1997). Making students' evaluations of teaching effectiveness effective: The critical issues of validity, bias, and utility. *American Psychologist*, 52, 1187–1197. doi:10.1037/0003-066X.52.11.1187
- McCarthy, M. A., Niederjohn, D. M., & Bosack, T. N. (2011). Embedded assessment: A measure of student learning and effectiveness. *Teaching of Psychology*, 38, 78–82. doi:10.1177/0098628311401590
- McKeachie, W. J. (2002). *McKeachie's teaching tips: Strategies, research, and theory for college and university teachers* (11th ed.). Boston, MA: Houghton Mifflin.
- McElroy, H. K., & Prentice-Dunn, S. (2005). Graduate students' perceptions of a teaching of psychology course. *Teaching of Psychology*, 32, 123–125. doi:10.1207/s15328023top3202_8
- McKinney K. (Ed.). (2013). *The scholarship of teaching and learning in and across disciplines*. Bloomington, IN: Indiana University Press.
- McGovern, T. V., Corey, L., Cranney, J., Dixon, W. E., Holmes, J. D., Kuebli, J. E., . . . Walker, S. J. (2010). Psychologically literate citizens. In D. F. Halpern (Ed.), *Undergraduate education in psychology: A blueprint for the future of the discipline* (pp. 9–27). Washington, DC: American Psychological Association.
- Millis, K., Baker, S., Owen, J. E., Blakemore, O., Connington, F., Harper, Y. Y., . . . Stowell, J. (2010). Teaching and learning in the digital world. In D. F. Halpern (Ed.), *Undergraduate education in psychology: A blueprint for the future of the discipline* (pp. 113–128). Washington, DC: American Psychological Association.
- Osborne, R. E., & Wagor, W. F. (2004). Course assessment: Developing and assessing assessable objectives by using an integrative assessment model. In D. Dunn, C. Mehrotra, & J. Halonen (Eds.), *Measuring up: Educational assessment challenges and practices for psychology* (pp. 11–26). Washington, DC: American Psychological Association.
- Overall, J. U., & Marsh, H. W. (1979). Midterm feedback from students: Its relationship to instructional improvement and students' cognitive and affective outcomes. *Journal of Educational Psychology*, 71, 856–865. doi:10.1037/0022-0663.71.6.856
- Palomba, C. A., & Banta, T. W. (1999). *Assessment essentials: Planning, implementing, and improving assessment in higher education*. San Francisco, CA: Jossey-Bass.
- Pashler, H., McDaniel, M., Rohrer, D., & Bjork, R. (2008). Learning styles: Concepts and evidence. *Psychological Science in the Public Interest*, 9, 105–119. doi:10.1111/j.1539-6053.2009.01038.x
- Phelps, R. E. (2012). *Diversity and diversity issues in teaching*. In W. Buskist & V. A. Benassi (Eds.), *Effective college and university teaching* (pp. 145–154). Los Angeles, CA: Sage.
- Prieto, L. R., & Meyers, S. A. (1999). Effects of training and supervision on the self-efficacy of psychology graduate teaching assistants. *Teaching of Psychology*, 26, 264–266. doi:10.1207/S15328023TOP260404
- Prieto, L. R., & Scheel, K. R. (2008). Teaching assistant training in counseling psychology. *Counseling Psychology Quarterly*, 21, 49–59. doi:10.1080/09515070801900780
- Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Research*, 93, 223–232. doi:10.1002/j.2168-9830.2004.tb00809.x
- Pusateri, T., Halonen, J., Hill, B., & McCarthy, M. (2009). *The assessment cyberguide for learning goals and outcomes*. Washington, DC: American Psychological Association. Retrieved from <http://www.apa.org/ed/governance/bea/assessment-cyberguide-v2.pdf>
- Race, P., Brown, S., & Smith, B. (2005). *500 tips on assessment* (2nd ed.). New York, NY: Routledge.
- Roediger III, H. L., & Karpicke, J. D. (2006). The power of testing memory: Basic research and implications for educational practice. *Perspectives on Psychological Science*, 1, 181–210. doi:10.1111/j.1745-6916.2006.00012.x
- Rominger, R., & Kolesar, A. (2008). *Diversity related bibliography and resources*. Society for the Teaching of Psychology, Office of Teaching Resources in Psychology Online. Retrieved from <http://teachpsych.org/resources/Documents/otrp/resources/rominger08.pdf>
- Rothkopf, E. Z., & Kaplan, R. (1972). Exploration of the effect of density and specificity of instructional objectives on learning from text. *Journal of Educational Psychology*, 63, 295–302. doi:10.1037/h0033586
- Royer, P. N. (1977). Effects of specificity and position of written instructional objectives on learning from lecture. *Journal of Educational Psychology*, 69, 40–45. doi:10.1037/0022-0663.69.1.40
- Rutz, C., Condon, W., Iverson, E. R., Manduca, C. A., & Willett, G. (2012). Faculty professional development and student learning: What is the relationship? *Change: The Magazine of Higher Learning*, 44, 40–47.
- Saville, B. K., Pope, D., Lovaas, P., & Williams, J. (2012). Interteaching and the testing effect: A systematic replication. *Teaching of Psychology*, 39, 280–283. doi:10.1177/0098628312450435
- Saville, B. K., Zinn, T. E., Brown, A. R., & Marchuk, K. A. (2010). Syllabus detail and students' perceptions of teacher effectiveness. *Teaching of Psychology*, 37, 186–189. doi:10.1080/00986283.2010.488523
- Schaeffer, G., Epting, K., Zinn, T., & Buskist, W. (2003). Student and faculty perceptions of effective teaching: A successful replication. *Teaching of Psychology*, 30, 133–136. doi:10.1207/S15328023TOP3002_11

- Schafer, P., Hammer, E. Y., & Berntsen, J. (2012). Using course portfolios to assess and improve teaching. In M. E. Kite (Ed.), *Effective evaluation of teaching: A guide for faculty and administrators*. (pp. 71–78). Retrieved from <http://teachpsych.org/ebooks/evals2012/index.php>
- Slattery, J. M., & Carlson, J. F. (n.d.). *Guidelines for preparing exemplary syllabi*. Retrieved from <http://teachpsych.org/otrp/syllabi/guidelines.php>
- Slattery, J. M., & Carlson, J. F. (2005). Preparing an effective syllabus: Current best practices. *College Teaching*, *53*, 159–164.
- Slavich, G. M., & Zimbardo, P. G. (2012). Transformational teaching: Theoretical underpinnings, basic principles, and core methods. *Educational Psychology Review*, *24*, 569–608. doi:10.1007/s10648-012-9199-6
- Smith, R. A. (2008). Moving toward the scholarship of teaching and learning: The classroom can be a lab, too! *Teaching of Psychology*, *35*, 262–266. doi:10.1080/00986280802418711
- Society for the Teaching of Psychology. (n.d.). *Psychology conferences*. Retrieved from <http://teachpsych.org/conferences/conferences.php>
- Springer, L., Stanne, M., & Donovan, S. S. (1999). Effects of small-group learning on undergraduates in science, mathematics, engineering, and technology: A meta-analysis. *Review of Educational Research*, *69*, 21–51. doi:10.3102/00346543069001021
- Svinivki, M., & McKeachie, W. J. (2011). *McKeachie's teaching tips: Strategies, research, and theory for college and university teachers* (13th ed.). Belmont, CA: Wadsworth.
- Stellmack, M. A., Konheim-Kalkstein, Y. L., Manor, J. E., Massey, A. R., & Schmitz, J. P. (2009). An assessment of reliability and validity of a rubric for grading APA-style introductions. *Teaching of Psychology*, *36*, 102–107. doi:10.1080/00986280902739776
- Titchener, E. B. (1901). *Experimental psychology; A manual of laboratory practice*. New York, NY: MacMillan.
- Tomcho, T. J., & Foels, R. (2009). The power of teaching activities: Statistical and methodological recommendations. *Teaching of Psychology*, *36*, 90–95. doi:10.1080/00986280902739743
- Trimble, J. E., Stevenson, M. R., & Worell, J. (2003). *Toward an inclusive psychology: Infusing the introductory psychology textbook with diversity content*. Retrieved from <http://www.apa.org/pi/oema/programs/recruitment/inclusive-textbooks.pdf>
- University of Minnesota, Center for Teaching and Learning. (n.d.). *Syllabus tutorial*. Retrieved from <http://www1.umn.edu/ohr/teachlearn/tutorials/syllabus/index.html>
- Vespia, K. M., Wilson-Doenges, G., Martin, R. C., & Radosevich, D. M. (2012). Experiential learning. In B. M. Schwartz & R. A. R. Gurung (Eds.), *Evidence-based teaching for higher education* (pp. 77–97). Washington, DC: American Psychological Association.
- Wade, C. (1995). Using writing to develop and assess critical thinking. *Teaching of Psychology*, *22*, 24–28. doi:10.1207/s15328023top2201_8
- Walker, A., & Leary, H. (2009). A problem-based learning meta-analysis: Differences across problem types, implementation types, disciplines, and assessment levels. *Interdisciplinary Journal of Problem-Based Learning*, *3*, 6–28.
- Wilson, S. G. (2013). The flipped class: A method to address the challenges of an undergraduate statistics course. *Teaching of Psychology*, *40*, 193–199. doi:10.1177/0098628313487461
- Wolfe, H. K. (1895). The new psychology in undergraduate work. *Psychological Review*, *2*, 382–387. doi:10.1037/h0075314
- Worrell, F. C., Casad, B. J., Daniel, D. B., McDaniel, M., Messer, W. S., Miller, H. L., . . . Zlokovich, M. S. (2010). In D. F. Halpern (Ed.), *Undergraduate education in psychology: A blueprint for the future of the discipline* (pp. 129–144). Washington, DC: American Psychological Association.
- Yanchar, S. C., & Slife, B. D. (2004). Teaching critical thinking by examining assumptions. *Teaching of Psychology*, *31*, 85–90. doi:10.1207/s15328023top3102_2
- Yost Hammer, E., & Giordano, P. J. (2012). *Active learning*. In W. Buskist & V. A. Benassi (Eds.), *Effective college and university teaching* (pp. 99–106). Los Angeles, CA: Sage.