



Skills for Undergraduate Psychology Majors:

Because You **Need It,** Do We **Measure It?**

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Educators have long been interested in knowing what their students know, and what they can do. In the United States, collegiate level grading began in 1783 at Yale University using the terms (from best to worst) *optime*, *second optime*, *inferiores*, and *peiores*. Based on this 4-point grading scale, grade point averages could now be calculated (Milton, Pollio, & Eison, 1986). Educators have been quantifying learning

outcomes ever since. In my opinion, the bulk of our collective efforts has been to measure what our students know. My intention here is to make the point to students, and those who advise them, that psychology educators also need to acquire information from our students about what our students can *do*. Of course knowledge is important, but skill development is also important. The theme of skill development has been

Table 1 | APA Undergraduate Guidelines and Corresponding Skill-Based Assessments

APA Undergraduate Guideline	Skill-Based Assessments (Mostly)
Goal 1: Knowledge Base of Psychology Students will demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.	» GRE Subject Test in Psychology » Major Field Test for Psychology » Area Concentration Achievement Test (ACAT) in Psychology
Goal 2: Research Methods in Psychology Students will understand and apply basic research methods in psychology, including research design, data analysis, and interpretation.	
Goal 3: Critical Thinking Skills in Psychology Students will respect and use critical and creative thinking, skeptical inquiry, and, when possible, the scientific approach to solve problems related to behavior and mental processes.	» California Critical Thinking Skills Tests » Collegiate Assessment of Academic Proficiency (CAAP) Critical Thinking Test » Collegiate Learning Assessment (CLA) Critical Thinking, Analytic Reasoning, and Problem Solving » Cornell Critical Thinking Test » Watson Glaser Critical Thinking Appraisal » Measure of Academic Proficiency and Progress
Goal 4: Application of Psychology Students will understand and apply psychological principles to personal, social, and organizational issues.	
Goal 5: Values in Psychology Students will be able to weigh evidence, tolerate ambiguity, act ethically, and reflect other values that are the underpinnings of psychology as a discipline.	
Goal 6: Information and Technological Literacy Students will demonstrate information competence and the ability to use computers and other technology for many purposes.	» iSkills » Internet and Computing Core Certification (IC3) » Computer Skills Placement (CSP) » North Carolina Computer Skills Test » Assessment of Basic Computer Proficiency
Goal 7: Communication Skills Students will be able to communicate effectively in a variety of formats.	» Collegiate Assessment of Academic Proficiency (CAAP) Writing Skills Test » Collegiate Assessment of Academic Proficiency (CAAP) Writing Essay Test » Collegiate Level Assessment (CLA) Written Communication » WorkKeys Foundational Skills Assessment: Writing
Goal 8: Sociocultural and International Awareness Students will recognize, understand, and respect the complexity of sociocultural and international diversity.	» Student Portfolio and Information Form (SPIF)/ePortfolio » Beliefs, Events, and Values Inventory » Global Awareness Profile » Global Perspective Inventory » Intercultural Development Inventory
Goal 9: Personal Development Students will develop insight into their own and others' behavior and mental processes and apply effective strategies for self-management and self-improvement.	» WorkKeys Personal Skills Assessment (Performance, Talent, Fit) » WorkKeys Foundational Skills Assessment: Teamwork » WorkKeys Foundational Skills Assessment: Observation » WorkKeys Foundational Skills Assessment: Listening
Goal 10: Career Planning and Development Students will emerge from the major with realistic ideas about how to implement their psychological knowledge, skills, and values in occupational pursuits in a variety of settings.	

frequently mentioned in previous issues of *Eye on Psi Chi* (e.g., Appleby, 2000; Beins, 2003). When McGovern, Furumoto, Halpern, Kimble, and McKeachie (1991) wrote about the common goals that undergraduate education in psychology should aspire to, notice the emphasis on *skills*: knowledge base, thinking skills, language skills, information gathering and synthesis skills, research methods and statistics skills, interpersonal skills, history of psychology, and ethics and values (for more on the assessment of skills, see Graham (1998) and Halpern (1988)). You can see that the above-listed skills are the direct precursors to the current *APA Guidelines for the Undergraduate Psychology Major* (American Psychological Association, 2007). Each of the 10 undergraduate *Guidelines* is presented in the left column of **Table 1**.

Although psychology educators have been talking about skills for some time, more recent efforts have been more detail-oriented about the assessment of skills and abilities. For example, Kruger and Zechmeister (2001) developed a skills-experience inventory that students might use to gauge their own progress. Fried and Johanson (2003) asked psychology alumni to self-assess their own level of skill development, and link these skill levels to specific courses in their undergraduate curriculum. Gaither and Butler (2005) asked general psychology students what skills they expected psychology majors to gain, and the results matched well with the *Guidelines* (APA, 2007).

But what about the actual measurement (i.e., *assessment*) of student skills? One could make the argument that that is what grades do; however, individual grades tend to represent the cumulative knowledge and skills obtained in a particular course, and a student's GPA represents this same accumulation over multiple courses. Grades are not very indicative of specific skills and abilities, including those listed in the left side of the table. Scoring well on content-based tests is not the same as having the ability to apply skills in real-world situations. Say for example that you received an "A" in your English Composition course. This grade is not necessarily an indicator of your skill in writing in APA format, nor even more broadly the communication skills desired in Goal #7 (see **Table 1**). Luckily, some psychology educators have begun work on the development of assessment plans and

rubrics for understanding psychology major skills, such as scientific inquiry (Halonen, et al., 2003) and critical thinking (Lawson, 1999). By carefully defining the skill and developing a grading rubric for that skill, this should facilitate the development of assessment techniques that will allow psychology educators to actually measure a student's skill in a particular area.

On the whole, developing assessments with the goal of measuring the level of skill attainment is extremely challenging. In **Table 1**, I have attempted to summarize the current "state of affairs" with regard to actual measures of the 10 *Guidelines*. Please note that there is some subjectivity in the creation of such a resource, and some may question the inclusion of a particular instrument, while others may lament my exclusion of some fine instruments. However it is viewed, I believe **Table 1** is instructive and tells an important story about where our strengths and weaknesses lie in psychology education. In my estimation, we currently have multiple measures available to us to measure goals such as knowledge base in psychology (#1), critical thinking (#3), information and technological literacy (#6), communication skills (#7), sociocultural and international awareness (#8), and personal development (#9). But students, think about this – how many of these assessments listed in the right side of **Table 1** have you actually completed? Although psychology educators have some confidence that we help students develop these skills, the question becomes this—how do we know the level of competency with which our students leave the undergraduate psychology major? My best guess is that rarely do we have evidence that students have achieved the skills we hope we are imparting. Furthermore, look at the gaps in the table! To my knowledge, there are not psychometrically sound, national assessments available to help us measure a student's *skills* in the areas of research methods in psychology (#2), application of psychology (#4), values in psychology (#5), or career planning and development (#10).

What's the moral to this story? If psychology educators want to be serious about imparting students with knowledge, *skills*, and abilities, we need to do a better job measuring students' skill levels. Not only do we need measures in some of the areas of the *Guidelines* (APA, 2007), but ideally we would have multiple measures available with established reliability and validity.

Students, these goals are important to you, too. Employers often lament that new graduates are not prepared for the professional world (for an excellent resource on transitions from college to career, see Hettich & Helkowski, 2005). About 1/3 of employers surveyed recently by the Association of American Colleges and Universities (2008) indicated that recent college graduates lacked the knowledge and skills needed to succeed in entry-level positions (see, employers emphasize knowledge *and* skills). When employers were asked specifically what recent college graduates lacked, the following percentages of employers reported these problems: global knowledge (46%), self-direction (42%), writing skills (37%), critical thinking skills (31%), adaptability (30%), and self-knowledge (26%). The good news is that the APA *Guidelines* overlap nicely with what employers want; the bad news is that employers appear dissatisfied with the preparation with recent graduates—some students are dissatisfied too (see the quarterlife crisis; Robbins & Wilner, 2001). For students, assessment in these areas is critical, so that you can enter the world of work confident that you have the knowledge and skills to succeed. But if we don't measure that knowledge and skill, how will you know?

This is a "call-to-arms" to both faculty and students who care about undergraduate psychology education. Students (and this may seem a bit counterintuitive to you), call for *more* assessment and *more* systematic measurement of what you know AND what you can do. Your faculty members can use this information to improve instruction and improve opportunities provided to students. Faculty, meet the challenge. Enormous resources are invested in undergraduate psychology education. I do not believe it is too much to ask to document the knowledge and skills that we say we value. Greater use of existing assessments should occur, as well as the development of new measures, especially in those areas where none currently exist. Development of new measures should include multi-institutional collaborations and adhere to the best practices to assure reliability and validity—in fact, current Psi Chi mechanisms (research awards and research grants) could go a long way in aiding the development of assessment practices that capture skills. If we want to continue to meet the needs of our students and society as a whole, we must move forward to develop and use measures of student skills.

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