# Assessing Learning

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At the core of teaching is the question: Are my students learning? While you might have some intuitive grasp on your students' collective learning most instructors use assessment to get a clear picture. Assessment is a "global term used to refer to the authentic evaluation of teaching and learning outcomes" (Dunn, McCarthy, Baker, Halonen, & Boyer, 2011, p. 145). Assessment involves "*the systematic collection of information about student learning, using the time, knowledge, expertise, and resources available, in order to inform decisions about how to improve learning*" (Walvoord, 2004, p. 2; italics in original). Whereas assessment is often considered an evil word, the reality is that it is the main way we know if our students get anything out of our classes. We all assess learning in one form or the other. There are good ways to do it and some less so.  Introductory psychology brings its own challenges to an already complex task.

## Student Learning Outcomes (SLOs)

Instead of jumping straight into types of exams—the typical focus when one thinks of assessment--it is important to take a step back and consider what you want to assess. The first important part in the design of any course is deciding on Student Learning Outcomes (Gurung & Landrum, 2013). Student learning outcomes (SLOs), sometimes called learning objectives, are the "knowledge, skills, attitudes, and habits of mind that students take with them from a learning experience" (Suskie, 2009, p. 117). The systematic measurement of SLOs provides the evidence that learning occurred.

Well-written SLOs possess three characteristics: performance outcomes, contextual conditions, and behavioral criteria (Mager, 1962; Marzano, 2009).  First, an SLO should describe what the student should know or be able to do after the learning experience in precise terms—analogous to a good operational definition.  Second, a SLO may describe the conditions or context in which the demonstration of knowledge and/or skills is to occur—that is, the context. Third, educators should establish a criterion or rubric for grading a student's attempt to satisfy SLO achievement.

There are at least three different types of SLOs:
(a) knowledge and conceptual understanding,
(b) thinking and other skills,
(c) attitudes, values, dispositions, and habits of mind (Suskie, 2009).

A knowledge learning goal would have the sentence structure "students will understand _____," and a skill learning goal (skill) would have the sentence structure "students will be

able to _____." Although planning SLOs for students sounds intuitive, the development of meaningful and measurable learning goals is challenging.

Instructional designers typically recommend that the course design process start with SLOs, but in reality, many teachers design their courses and implement pedagogical techniques using SLOs as an afterthought—called the "typical approach" by Wiggins and McTighe (1998). So rather than the "afterthought" design, one alternative would be to design the course "backward."  In fact, even though educators may not explicitly describe their SLOs or even know that they have SLOs, they implicitly exist.  In a recent study of Intro psychology syllabi sampled from around the United States of America, Homa et al., (2013) found that near 20% of syllabi did not have SLOs at all! Adequately measuring SLOs is challenging (e.g., Moore & Gayle, 2010). Entire volumes are devoted to providing detailed instruction on how to conduct assessments (e.g., Dunn, McCarthy, Baker, & Halonen, 2011; Maki, 2011). If you feel like you need a refresher course on SLOs your best bet is Suskie (2009).

## Where do SLOs come from?

This one is easy. You have a number of places to look for your class SLOs. APA has a set of five SLOs each broken down into foundational and higher-level indicators (APA, 2013). Your department should have its own learning outcomes as well. Your course SLOs come from these two sources in addition to your own goals for the class. Noba makes it easy for you since each module has its own SLOs which are listed along with APA SLOs and are conveniently located in the instructor's manual.

## Assessing SLOs: Exams

Large numbers of students make it difficult to use essay or even short answer exams. Large class instructors commonly use multiple-choice exams (often 3-4) to assess learning. Whereas this is not problematic in that there are ways to write good multiple-choice questions getting at many levels of learning (Davis, 2009; Svinicki & McKeachie, 2011), it is still preferable to try and use different assessment techniques. Some examples include:

- Group testing: have small groups of students or pairs complete a single test. In this testing format, students discuss answers with each other and share their knowledge and learning. Do not use this strategy for the final exam.
- Use peer grading: Assign a short paper to a large class and then have students critique the each others' papers using a rubric that you provide.
- Use short in-class writing assignments in which you can easily skim the content for accuracy and assign a point value. Even a few opportunities to write and express understanding provide students with a valuable learning opportunity over the multiple choice exam.

Note: that in larger classes there is an increased likelihood that students will cheat. Instructors should take special precautions to minimize cheating, including creating different versions of exams so that students sitting right next to each other are not tempted to cheat from their partners. Some instructors have students bring in student identification to ensure that only enrolled students are taking the exam.

## References

Angelo, T. A., & Cross, K. P. (1993). *Classroom assessment techniques: A handbook for college teachers* (2nd ed.)*.* San Francisco: Jossey-Bass.

Bernstein, D., Addison, W., Altman, C., Hollister, D., Meera K., Prieto, L. R., Rocheleau, C. A., & Shore, C.  (2009). Toward a scientist-educator model of teaching psychology.  In D. Halpern (Ed.), *The NCUEP: A Blueprint for the Future* (pp.29-46). APA: Washington D.C.

Dunn, D. S., McCarthy, M. A., Baker, S. C., & Halonen, J. S. (Eds.) (2011). *Using quality benchmarks for assessing and developing undergraduate programs.*  San Francisco: Jossey-Bass.

Dunn, D. S., McCarthy, M. A., Baker, S. C., Halonen, J. S., & Boyer, S. (2011). Understanding faculty reluctance to assess teaching and learning. In D. Mashek and E. Y. Hammer (Eds.). *Empirical research in teaching and learning: Contributions from social psychology* (pp. 143- 159). Malden, MA: Wiley-Blackwell.

Gurung, R. A. R., & Landrum, R. E. (2012). Assessment and the Scholarship of Teaching and Learning. In D. Dunn, S. C. Baker, C. M. Mehrotra, R. E. Landrum, & M. McCarthy (Eds.) Assessing Teaching and Learning in Psychology: Current and Future Perspectives.

Gurung, R. A. R., & Schwartz, B. M.  (2009).  *Optimizing teaching and learning: Practicing pedagogical research*. Malden, MA: Wiley-Blackwell.

Halonen, J. S., Dunn, D. S., McCarthy, M. A., & Baker, S. C. (in press). Are you really above average? Documenting your teaching effectiveness.  In B. M. Schwartz & R. A. R. Gurung (Eds.) *The psychology of teaching: An empirically based guide to picking, choosing, and using pedagogy.* Washington, DC: American Psychological Association.

Halpern, D. F. (2004). Outcomes Assessment 101. In D. S. Dunn, C. M. Mehrotra, J. S. Halonen, D. S. Dunn, C. M. Mehrotra, J. S. Halonen (Eds.), *Measuring up: Educational assessment challenges and practices for psychology* (pp. 11-26). Washington, DC US: American Psychological Association. doi:10.1037/10807-001

Landrum, R. E. (2011). Assessing student learning outcomes. In R. L. Miller, E. Amsel, B. M Kowalewski, B. C. Beins, K. D. Keith, & B. F. Peden (Eds.), *Promoting student engagement* (Vol. 1, pp. 251-257).  Retrieved from the Society for the Teaching of Psychology web site http://teachpsych.org/resources/e-books/pse2011/vol1/index.php

Maki, P. L.  (2011).  *Assessing for learning: Building a sustainable commitment across the institution*.  Sterling, VA: Stylus.

Suskie, L.  (2009). *Assessing student learning: A common sense guide* (2nd ed.).  San Francisco, CA: Jossey-Bass/Wiley.

Walvoord, B. E.  (2004). *Assessment clear and simple: A practical guide for institutions, departments, and general education*.  San Francisco, CA: Jossey-Bass.