

Handout: Assessing Student Achievement of Learning Outcomes

Once desired learning outcomes have been specified in behavioral terms, methods should be outlined that will allow assessment of student achievement for each outcome. Such assessments provide important data for program review, curriculum improvement, and monitoring of student performance. Plus, in the case of courses that fulfill General Education requirements, SUNY System Administration mandates assessment of SUNY-specified General Education learning outcomes according to set criteria. (For more information on special assessment requirements for General Education courses, contact the Carol Tutzauer, Director for Assessment, tutzauer@buffalo.edu.)

While assessment could involve supplemental efforts by students, most instructors will find it most expedient to utilize existing course activities as the basis for assessment. Once a course-embedded activity is identified and a framework for its scoring (grading) specified, a decision rule can be established for classifying students as to their achievement level for the given learning outcome.

The list below is provided as an aid to faculty in identifying existing activities that could be used for assessment purposes.

Multiple-choice exam. Many faculty, particularly those with large class enrollments, utilize multiple-choice exams to evaluate student learning. Although items may cover a variety of learning objectives for the course, a subset of items can frequently be identified to gauge student achievement of one or more specific learning outcomes. Computerized scoring makes the process simple given the scan-center options either of designating a “subtest” or an alternative scoring key. Both options allow direct reporting of results on the subset of items alone, perfect for providing a measure for each distinct learning outcome.

Pre- and post-testing. A very simple method for determining the amount of learning in a course is to test at the beginning of the course and then test again at the conclusion of the course. Many faculty have found this process extremely beneficial for a variety of purposes: (1) identifying initial misunderstandings or lack of prerequisite knowledge; (2) motivating students to attend to course content; (3) signposting to students what they will be expected to *do* by the *end* of the course; and (4) providing key evidence of learning *gains*. Although the idea of pre- and post-testing may at first seem onerous, it can be as simple as administering an old exam on the first day of class!

Semester-end project. Frequently, students will be expected to demonstrate their acquired skills through completion of a course project. Such projects are generally scored according to set criteria, whereby the student demonstrates his/her facility with a number of course-related skills. The scores on some or all of the criteria can serve as the assessment data for certain learning outcomes.

Lab reports. An important vehicle for learning scientific methods of inquiry is the laboratory experiment. When faculty require that the student produce a report detailing various aspects of his/her laboratory experience, then the laboratory report can frequently form the basis for assessing student learning on one or more outcomes. This is especially true when faculty scoring involves a checklist of components that must be present in the report. Lab reports provide a rich data source for evaluating student skill and understanding, particularly in the natural sciences.

Final paper. In classes with smaller enrollments, faculty frequently require students to write a final paper that effectively synthesizes what they have learned and gives students the opportunity to demonstrate their depth of understanding. Provided that the faculty member formally scores the paper on various dimensions or against particular criteria, the student paper becomes an excellent source of data for assessment.

Other student products: Anything that a student produces for the course and that is evaluated by the instructor can potentially be used for assessment. Below are other student products that can provide data on student learning:

- Presentation or speech
- Formal essay
- Group project
- Group discussion
- Case study
- Game
- Portfolio of student work
- Journal or log
- Performance
- Problem sets or other homework
- Critique
- Quiz

Sample assessment plan

Course: COM515 Communication Theory

Description: In this course, students will survey theoretical approaches employed in the study of communication processes. Students will also learn the essential features of several theoretical approaches: covering law, rules, systems, critical, and postmodern. After surveying existing theories, students will examine how theories are constructed, explicated, and then tested. This course is designed to prepare entering graduate communication students to become active participants in the communication field.

Learning outcomes and method of assessment:

By the end of the course, students should be able to ...	Method of assessment ...
Identify major theories in the areas of interpersonal, organizational, group, and mass communication	Competency-based exam in which students must read research abstracts and identify the communication theory being tested (70% correctly identified = outcome achieved)
Classify theories as to their ontological approach: covering law, rules, systems, critical, or postmodern perspective	Competency-based exam (above), but after identifying the theory, the student must also indicate the ontological approach of that theory (70% correctly identified = outcome achieved)
Construct an original theory in an area of personal interest	Student theory construction paper, in which student must present a theoretical problem, literature review, and then outline an original theory that they contend helps explain the problematic situation (student will revise and resubmit paper until it meets "conference paper" quality standard)
Propose a research study to test key hypotheses derived from their original theory	Student theory construction paper, in which student must also write a research proposal to test several hypotheses that can be derived from their original theory (student will revise and resubmit paper until it meets "conference paper" quality standard)
Critique research studies as to their ability to test underlying theory	Student critiques of fellow students' oral presentations of their theories and accompanying research proposals (must identify at least one key limitation for each presentation critiqued in order for outcome to be achieved)