SOUTHWESTERN OREGON COMMUNITY COLLEGE

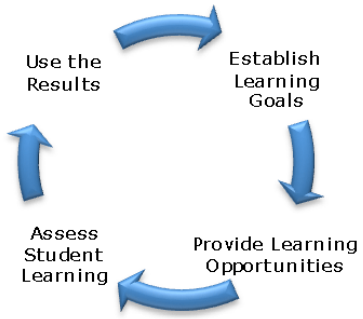
Assessing Student Learning

Assessment

Because the assessment of student learning in higher education is relatively new compared to many other fields of study, and because it has been undertaken by people from disciplines with widely differing orientations, the vocabulary of assessment is not yet standardized. Thomas Angelo (1995) suggest these definitions of assessment which is a continuous four-step cycle:

Assessment in the ongoing process of

- Establishing clear, measurable expected outcomes of student learning.
- Ensuring that students have sufficient opportunities to achieve those outcomes.
- Systematically gathering, analyzing, and interpreting evidence to determine how well student learning matches our expectations.
- Using the resulting information to understand and improve student learning.



Traditional and Current Approaches to Assessment

How are today's approaches to assessment different from the oral and written examinations that faculty have been conducting for centuries?

An important difference between contemporary and traditional thinking about assessment is that under contemporary approaches, assessment is viewed as part of an integrated, collaborative learning experience. Students learn better when their college experiences are not collections of isolated courses and activities but are purposefully designed as coherent, integrated learning experiences in which courses and out-of-class experiences build on and reinforce one another. Indeed, Gerald Graff (2008) has noted that successful colleges stress collaboration over "individual teaching brilliance" and that students find unrelated courses confusing. When students can see connections among their learning experiences, their learning is deeper and more lasting.

The value of education as an integrated, collaborative experience has several important implications for teaching and assessment:

- *Integrated learning goals.* There should be appropriate relationships among institutional, program, and course learning goals and outcomes.
- *Curricular alignment.* Curricula should be designed to ensure that every student, regardless of the particular choices he or she makes in choosing a course, has ample opportunity to achieve every key institutional program learning goal and outcome.
- *Collaboration.* Learning goals and outcomes, curricula, and assessments should be designed through collaboration across the college community.
- *Embedded assignments.* An important side benefit of providing integrated learning experiences is that student learning assessments can be similarly integrated. Assessments that are embedded into individual course can often provide information on student achievement of program, general education, and institutional goals and outcomes.

Direct and Indirect Evidence of Student Learning

Direct evidence of student learning is tangible, visible, self-explanatory, and compelling evidence of exactly what students have and have not learned. It might also be defined as the kind of evidence that a skeptic would accept. A

skeptic might be dubious of grades or students' self-ratings as evidence that students can write well, for example.

Grades might be inflate, after all, and students could have misconceptions about their skills. But a skeptic would be hard-pressed to argue with actual student writing samples, accompanied by grading criteria showing rigorous standards. Below are examples of direct evidence of student learning.

- Ratings of student skills by their field experience supervisors.
- Scores and pass rates of appropriate licensure or certificate exams.
- Capstone experiences.
- Other written work, performances, and presentations scored using a rubric.
- Portfolios of student work.
- Scores of locally-designed, multiple-choice, or essay tests such as final examinations in key courses.
- Score gains between entry and exit on published or local tests or writing samples.
- Observations of student behavior such as presentations and group discussions.
- Summaries and assessments of electronic class discussion threads.
- Think-alouds which ask students to think aloud as they work on a problem or assignment.
- Classroom response systems (clickers) that allow students in their classroom seats to answer questions posed by the teacher.
- Feedback from computer-stimulated tasks.
- Student reflections on their values, attitudes and beliefs if developing those are intended outcomes of the program.

Indirect evidence consists of proxy signs that students are probably learning. Indirect evidence is less clear and less convincing than direct evidence.

- Course Grades.
- Assignment grades, if not accompanied by a rubric or scoring criteria.
- Retention and graduation rates.
- Quality and reputation of four-year programs into which students are accepted.
- Alumni perceptions of their career responsibilities and satisfaction.
- Student ratings of their knowledge and skills and reflections on what they have learned over the course of the program.
- Questions on end-of-course student evaluation forms that ask about the course rather than the instructor.
- Student, alumni, and employer satisfaction with learning, collected through surveys, exit interviews, or focus groups.
- Honors, awards, and scholarships earned by student and alumni.

Performance Assessments and Traditional Assessments

Traditional assessments are the kinds of tests that have been around for decades, if not centuries: multiple-choice tests, essay tests, and oral examinations. They are usually designed only to collect assessment information, not give students a learning opportunity. Students typically complete traditional assessments in controlled, timed examination settings.

Performance assessments ask students to demonstrate their skills rather than relate what they've learned through traditional tests. Writing assignments, projects, laboratory and studio assignments and performances, are examples. Performance assessments are sometimes called *alternative assessments* because they are alternatives to traditional multiple-choice and blue book tests. Performance assessments that ask students to do real-life tasks, such as analyzing case studies with bona-fide data, conducting realistic laboratory experiments, or completing internships are called

authentic assessments. Performance assessments have two components: the assignment or prompt that tells students what is expected of them and a scoring guide or rubric used to evaluate completed work.

Embedded and Add-On Assessments

Embedded assessments are program, general education, or institutional assessments that are embedded into course work. In other words, they are course assessments that do double duty, providing information not only on what students have learned in the course but also their progress in achieving program or institutional goals.

Sometimes embedded assessments cannot answer all key questions about student learning across a program. Therefore students may be asked to participate in ungraded *add-on assessments* beyond course requirements. The major challenge with most add-on assessments – indeed their major drawback – is convincing students not only to participate in them but also to give the assessment tasks serious thought and effort.

Quantitative and Qualitative Assessments

Qualitative assessments use structured, predetermined response options that can be summarized into meaningful numbers and analyzed statistically. Test scores, rubric scores, survey ratings, and performance indicators are all examples of quantitative evidence. Quantitative assessments are more common than qualitative, probably because many assessment practitioners are more familiar with quantitative techniques, some accreditors require quantitative evidence of student learning, and some public audiences find quantitative results more convincing.

Qualitative assessments use flexible, naturalistic methods and are usually analyzed by looking for recurring patterns and themes. Reflective writing, online class discussion threads, and notes from interviews, focus groups, and observations are examples. The key difference between qualitative assessments and informal, anecdotal observations is that qualitative assessments are systematic and structured. Students are routinely evaluated using common criteria.

Qualitative assessments are underused and underappreciated in many assessment circles. Unlike quantitative assessments, which collect only predetermined information, qualitative assessments allow us to explore possibilities that we haven't considered. They can give us fresh insight and help discover problems – and solutions – that can't be found through quantitative assessments alone. Qualitative assessments add a human dimension to an assessment effort, enhancing the dry tables and graphs that constitute many assessment reports with living voices.

Objective and Subjective Assessments

An *objective assessment* in one that needs no professional judgment to score correctly (although interpretation of the scores requires professional judgment). Most objective test items have only one correct answer and could be scored accurately by a reasonably competent eight year old armed with an answer key. *Subjective assessments* yield many possible answers of varying quality and require professional judgment to score.

Some people confuse quantitative with objective assessments, assuming that quantitative assessments must be objective. To the contrary, many subjective assessments yield quantitative results. Rubric scores, for example, are subjective ratings of student work that can be quantified and analyzed statistically.

Indeed, every assessment is inherently subjective because its directions, questions, problems, and scoring criteria are all developed through subjective, albeit expert, judgment. Not only assessments but the standards or benchmarks against which results are interpreted are determined subjectively. So "objective" assessments are not necessarily more accurate or of better quality than "subjective" assessments.

Advantages of Subjective Assessments

- *Subjective assessments evaluate many important skills that objective tests cannot,* including

organizations, synthesis, and problem-solving skills.

- *Subjective assessments can assess skills directly.* Many faculty and staff would agree, for example, that a writing sample is more convincing evidence of a student's writing skill than answers to multiple-choice questions on how to write.
- *Subjective assessments promote deep, lasting learning.* You probably learned and remember far more from the research papers you wrote in college than from the studying you did for multiple-choice final exams.
- *Scoring procedures for subjective assessments allow nuances.* On the subjective math test, for example, students can receive partial credit for doing part of a problem correctly.

Advantages of Objective Assessments

- *Students can provide a great deal of information on a broad range of learning goals in a relatively short time.* Testing experts call this *efficiency.*
- *Objective assessments encourage broader – albeit shallower – learning than subjective assessments because of their efficiency.*
- *Objective assessments are fast and easy to score,* although they are difficult and time-consuming to construct.
- *Objective assessment results can be summarized into a single number* – a performance indicator – making them appeal to those governing or funding colleges and programs.