

Selecting Measurable Outcomes

Outcomes are sometimes synonymous with learning objectives. Here, outcomes refer to the tasks or activities students perform to demonstrate learning. Outcomes or assessment tasks flow from the learning objectives and provide the evidence about the accomplishment of the learning goals and objectives of a program. Each outcome or assessment task has the following features: it can be evaluated, it links to learning goals and learning objectives, it reflects student learning, and can be direct or indirect assessment.

Multiple outcomes should be identified for each learning objective to provide more than one source of evidence. If multiple approaches to examining an outcome lead to the same conclusion, we have more confidence in that conclusion. We generally have more confidence in conclusions from direct assessments than from indirect assessments. One relatively simple way to get multiple results is to supplement direct assessment with indirect assessment. Evidence from direct assessment is more convincing because perceptions can be wrong, but if both approaches lead to the same conclusion, we can respond with more assurance (Allen, 2006, p. 133).

Direct assessment involves examining student demonstrations of their learning. The student task requires them to show the extent of their understanding. Indirect assessment involves perceptions or reflections of student learning through surveys of students, alumni, and employers or focus groups (Allen, 2006, p. 14). Direct assessment can be accomplished in the following ways (Wehlburg, 2010):

- Portfolios: Students gather elements of their work into a portfolio to demonstrate the learning that led to student knowledge.
- Course-specific assignments: Assignments are very specific to the learning objectives.
- Classroom Assessment Techniques (CATs): One example is the one-minute paper in which students are asked to write an answer to a question in one minute.

Examples of course-specific embedded tasks for assessment include a senior thesis or research project, performance or fieldwork experience, capstone projects, and senior essays (Volkwein, 2009, p. 103). Standardized tests, licensing or certification exams, skills tests, projects, papers, and performances are also common.

Advantages and disadvantages of common outcomes or assessment tasks for direct assessment include (Allen, 2006, pp. 147-166):

1. Standardized tests developed by professional test publishers

- a. Established validity and reliability
 - b. May not align with a school's learning outcomes
 - c. May not assess outcomes at the desired depth for the program
 - d. May be difficult to motivate students and faculty to participate
2. Locally developed tests
 - a. Aligned with a school's learning outcomes
 - b. Can test at desired levels of depth
 - c. Can utilize different types of questions and tasks
 - d. Validity and reliability should be verified
 - e. Lack norm groups for comparison
 - f. Time-consuming to develop and administer
3. Embedded assessment tasks
 - a. Offers opportunities for assessment within the teaching and learning context
 - b. Students are motivated because task also used as part of course grade
 - c. Faculty are motivated because task is integrated into their teaching
 - d. Data collection requires little additional workload other than coordinating the assessment and accumulating the results
 - e. Requires coordination among instructors
 - f. Faculty must agree on the scheme used for assessment
 - g. Because data are collected by specific faculty, care must be taken to ensure that the results are not tied to individual faculty.
4. Portfolios
 - a. Students monitor their own learning
 - b. Involves student reflection
 - c. Faculty can gain insights into student learning
 - d. Time demands can be excessive
 - e. May be difficult to motivate students to collect their work
 - f. Students may need assistance in creating portfolios.

Allen, M. J. (2006). *Assessing general education programs*. Bolton, MA: Anker Publishing Company, Inc.

Volkwein, J. F. (2009). *Assessing student outcomes: Why, who, what, how?* San Francisco: Jossey-Bass.

Wehlburg, C. (2010, December). Creative ways to assess student learning. *National Education Association, 28(2)*, p. 7.