

Data Sources for Outcomes Assessment

Direct data sources measure actual student work to determine whether the students have learned what instructors intend.

Capstone Experiences: Capstone experiences most often occur in a specific course students take toward the end of their academic program, but could also be part of a senior level course. Capstone experiences require students to demonstrate their accumulated knowledge and skills through creative products, research projects, written work, performance, or presentation.

Embedded Questions: Questions related to program learning outcomes can be embedded within course assignments or exams. For example, all sections of a course could include questions relating to a specific program learning outcome. Faculty score the exams as usual and provide anonymous copies of the embedded question responses to the assessment team for analysis.

Internships and Field Experiences: Internships and field experiences provide opportunities for students to demonstrate their learning outside the classroom. Observation of student activity within such experiences often provides valuable information on whether the students are able to apply classroom learning in real-world situations.

Observations: Directly observing student performances, speeches, role plays, lab work, skills demonstrations, or job performance is an excellent way to record their learning. Observation data can be recorded as a narrative, using a rubric, or as a checklist.

Portfolios: Portfolios typically include a thematic collection of student work across courses. Students assemble information based on criteria established by the faculty and may include research papers, essays, recorded performances, creative work, or laboratory research. A particularly valuable component of student portfolios is the reflective essay, in which students reflect on their growth in scholarship or creative efforts and draw conclusions about their strengths and weaknesses.

Standardized Exams: Culminating examinations may be constructed by program faculty or purchased from national testing services. Constructing examinations is time-consuming, yet they generally provide a better measure of student learning than purchased exams that may not align with learning outcomes. Standardized exams work best as part of program graduation requirement. They also may be given to students upon program entry and exit to provide documentation of learning.

Student Products: Individual student products (e.g., reports, essays, homework) from a particular course that represent a specific learning outcome are an excellent data source. The instructor uses the student work to provide grades while the assessment team examines the work with a focus on program learning outcomes.

Indirect data sources require inferring actual student abilities, knowledge, and values rather than measuring them directly.

Document Analysis: Systematic reviews of course syllabi, course assignments, and program documents may uncover information about program curriculum that is only evident once all the documents are collected. While a document analysis does not indicate what students have learned, it can help to identify potential sources of direct data and the relationships among courses.

Exit Interviews: Program graduates can participate in interviews or surveys to provide feedback. Data obtained can identify program strengths and weaknesses and offer students the opportunity to reflect on their learning. Students may not have an incentive to respond honestly or fully at graduation, however, and there are ethical concerns if providing assessment data at an exit interview is made a criterion for graduation. Generally, it is better to have someone from outside the program gather this type of data.

Focus Groups: Focus groups are a series of carefully planned discussions among homogeneous groups of 6-10 respondents who are asked a carefully constructed series of open-ended questions about their beliefs, attitudes, and experiences. The session is typically recorded and transcribed for analysis. The data are studied for major issues and reoccurring themes along with representative comments. Students, however, may not respond honestly while still in the program, and ethical concerns can arise when program staff or faculty facilitate the focus group. Like exit interviews, it may be better to have someone from outside the program gather the data.

Surveys: Surveys of students, alumni, and employers are limited in that they offer only opinions, can change over time, and rarely provide direct evidence of learning. While surveys have limitations, they are easy to administer, can supplement and contextualize direct measures, and may be the only way to gather data from alumni or geographically dispersed groups.

Adapted from:

Allen, Mary; Noel, Richard, C.; Rienzi, Beth, M.; and McMillin, Daniel, J. (2002). *Outcomes Assessment Handbook*. California State University, Institute for Teaching and Learning, Long Beach, CA.

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