

DIRECT AND INDIRECT MEASURES OF STUDENT LEARNING

Student learning can be measured using a number of methods. The methods are commonly grouped into two categories: direct and indirect measures. Best practices recommend the use of both direct and indirect measures when determining the degree of student learning that has taken place.

DIRECT MEASURES OF STUDENT LEARNING

Direct measures are regularly employed to measure learning in the classroom. Direct measures are those that measure student learning by assessing actual samples of student work. Examples include: exams/tests, papers, projects, presentations, portfolios, performances, etc. Because direct measures capture what students can actually do, they are considered best for measuring levels of achievement of student learning on specific outcomes.

DIRECT MEASURES FOR ADMINISTRATIVE, ACADEMIC, AND STUDENT SUPPORT SERVICES

Direct measures in non-academic areas are designed to measure the efficacy of services, programs, initiatives, etc. within areas that may have outcomes that are not related to student learning. The outcomes for these areas may relate to efficiency of processes, effectiveness of programs, etc. Business and Finance, Admissions, and Financial Aid are just a few of the departments on campus that may employ these types of outcomes. Examples of direct measures for administrative, academic, and student support services include quantitative reports on accuracy and timeliness of financial reports, stakeholder participation numbers and percentages, stakeholder attrition, and a host of other measures depending upon the outcomes and objectives established for the department.

INDIRECT MEASURES OF STUDENT LEARNING

Indirect measures provide a less concrete view of student learning; for example, attitudes, perceptions, feelings, values, etc. Indirect measures imply student learning by employing self-reported data and reports. Indirect measures help to substantiate instances of student learning. Indirect measures include surveys, interviews, course evaluations, and reports on retention, graduation, and placement, etc. Indirect measures are best situated at program or university level assessment. These measures are commonly in conjunction with direct measures of student learning.

INDIRECT MEASURES FOR ADMINISTRATIVE, ACADEMIC, AND STUDENT SUPPORT SERVICES

Indirect measures for administrative, academic, and student support services are designed to collect findings about stakeholders' attitudes, perceptions, feelings, values, etc. within areas that have outcomes that are not related to student learning. Related outcomes may be those that speak to customer satisfaction, impact of a program or service on constituents, value of programs and services, etc. Examples of indirect measures for administrative, academic, and student support services include: satisfaction surveys, interviews, evaluations, and focus group discussions.

WHEN AND WHERE TO USE INDIRECT AND DIRECT MEASURES

Direct measures are perfectly situated in course level assessment of student learning. The professor can gauge exactly how well and to what level a student is learning and using terminology, concepts and

theories. In higher-level courses and learning, faculty members are well positioned to assess higher-level cognitive use and extension of knowledge.

Objective Tests: On this type of exam, most often, faculty will not use an entire exam to assess one Student Learning Outcome. Nor would they use one question to assess performance on a five-point scale. Five questions on a math, multiple choice or short-answer exam can easily be translated into performance on the SMU five-point scale of: absent, beginning, developing, accomplished, or exemplary. If a student answers all 5 questions, their score is exemplary (5), if 4 questions their score is accomplished (4), etc.

Essays, Performances, Presentations, Projects: All of these are excellent for assessing student learning. It is essential to use rubrics to help in this assessment process. Rarely will any assignment or exam focus entirely on one student learning outcome, but by using rubrics, faculty can more quickly evaluate achievement levels on individual and specific learning outcomes.

Indirect measures can be situated in both course level and program level assessment of student learning. At the program and departmental level, indirect measures can be used to gauge the efficacy of services, processes, programs, initiatives, etc. If a professor is interested s/he can use an indirect measure to gauge the perceptions, values, attitudes, etc. that provide insight about student performance on the direct measures.

Surveys, Interviews, Course Evaluations — All of these are effective at measuring the effectiveness of a program or department. Well-crafted surveys, interview questions, and course evaluations can tap into the attitudes and perceptions students and other constituents have about a program or department. Thereby informing a program or department of what is or is not working in its operations.

Reports — Different types of reports such as those on recruitment, retention, placement, etc. can be instrumental in determining the effectiveness of a program or department's recruitment initiatives, retention efforts, skill level of students based upon placement scores, etc. This type of data should be used to inform how the program or department tailors its services to meet the needs of the university and its students.

COMBINING DIRECT AND INDIRECT MEASURES FOR HOLISTIC VIEW OF LEARNING AND ACHIEVEMENT

Each department (degree or certificate) is required to first use direct measures of student learning. They can then use indirect measures to support more broad success of the program. In addition to direct measures, faculty can use indirect measures to assess students' own perceptions of their learning.

One instance of how this might work is that a department may find, through the use of an indirect measure, that students who score low on a particular outcome may not fully know the value of that particular outcome. These findings could be very instrumental in giving the direction for teaching that

material. Since it is known that students tend to learn those skills that they perceive most valuable, perhaps faculty could emphasize how this particular skill can be used in everyday life or even within the students' majors.