



## DIRECT AND INDIRECT ASSESSMENTS

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Direct and indirect assessment methods have both advantages and disadvantages. In the program assessment process, it is important to have a clear understanding of the meaning and use of both.

What are they? Do you have to use both when assessing student learning? Direct assessment methods are most familiar to faculty. Direct assessments provide for the direct examination or observation of student knowledge or skills against measurable learning outcomes. Faculty conduct direct assessments of student learning throughout a course using such techniques as exams, quizzes, demonstrations and both oral and written reports. These techniques provide feedback on what students know and/or can do and provide strong evidence of student learning.

However, not all learning can be measured in a direct way. For example, a desired outcome of a course may be to promote affective traits such as inclusiveness or dependability, which are difficult to assess using direct methods<sup>1</sup>. Indirect assessments of student learning ascertain the perceived extent or value of learning experiences. They assess opinions or thoughts about student knowledge or skills. Indirect measures can provide information about the respondent's perception of student learning.

However, as evidence of student learning, indirect measures are not as strong as direct measures because assumptions must be made about how to interpret an indirect report. If students report that they have attained a specific learning outcome, how can that report be validated? An indirect assessment is useful in that it can be used to identify certain implicit qualities of student learning, such as values, perceptions and attitudes, from a variety of perspectives. However, in the absence of direct evidence, assumptions must be made about how well student perceptions match the reality of actual achievement of student learning.

It is important to remember that all assessment methods have their limitations and contain some bias. A meaningful assessment program would use both direct and indirect assessments from a variety of sources (students, alumni, faculty, employers, etc.). This use of multiple assessment methods provides converging evidence of student learning. Indirect methods provide a valuable supplement to direct methods and are generally a part of a robust assessment program.

The table below illustrates examples of assessment methods and how they are generally classified. It is important to remember that whether a specific method is direct or indirect will depend on the nature of what is being assessed and how the method is being used. For example, surveys and questionnaires are usually thought of as indirect assessment methods where we ask the respondents to give us their opinions about certain topics. However, if we prepare the survey for an internship supervisor who has directly observed a student's performance, then it would be a direct measure. The key is whether the results are a product of direct observation or the self-report or opinion of the respondent.

<b>Assessment Method</b>	<b>Direct</b>	<b>Indirect</b>
<b>Archival data</b> Biographical, academic or other file data available from college or other agencies and institutions.		✓
<b>Behavioral observations</b> Measuring the frequency, duration and context of a subject's actions, usually in a natural setting with non-interactive methods.	✓	
<b>External examiner</b> Using an expert in the field from outside your program to conduct, evaluate or supplement the assessment of your students.	✓	
<b>Exit and other interviews</b> Asking individuals to share their perceptions about an area of interest in a face-to-face dialog with an interviewer.		✓
<b>Faculty-developed exams or assignments</b> Designed by faculty for use in assessing course objectives and/or program outcomes.	✓	
<b>Focus groups</b> Guided discussion by trained moderator of a group of people who share certain characteristics.		✓
<b>Oral exams</b> Assessment of student knowledge levels through a face-to-face dialogue between the student and the examiner.	✓	
<b>Performance appraisal</b> Systematic assessment of acquired skills, generally through direct observation in a "real world" situation such as an internship.	✓	
<b>Portfolio</b> Collections of student work samples, usually compiled over time and rated using scoring rubrics.	✓	
<b>Simulations</b> Competency based measure where a person's abilities are measured in a situation that approximates a "real world" setting.	✓	
<b>Standardized exams</b> Commercially developed examinations, generally group administered, mostly multiple choice, "objective" tests, usually purchased from a private vendor.	✓	
<b>Surveys and questionnaires</b> Asking individuals to share their perceptions about a specific area of interest — e.g., their own or others' skills/attitudes/behavior, or program/course qualities and attributes.		✓

<sup>1</sup> For more information about assessing affective traits, see, "Student Outcomes" from the ABET Assessment Webinar Series at <https://vimeo.com/378866474>