

Selecting Assessment Instruments

Identify **two** measures for each outcome. The first measure must be a direct measure, and the second can be direct or indirect.

Direct and indirect measures

A direct measure is one in which students demonstrate their learning through a performance of some kind. Direct measures include exams, projects, and others where the students themselves actually demonstrate their knowledge or skill. An indirect measure is one that provides information from which we can draw inferences about student learning. Indirect measures do not call on students to demonstrate their knowledge or skill, but rely on information reported either by the students themselves or by some third party about the level of student knowledge or ability. Surveys and employment data are the most common indirect measures.

Examples of direct and indirect measures are shown below.

Direct measures	Indirect measures
Capstone (project / paper / portfolio)	Student surveys and focus groups
Standardized tests (ETS field tests, etc.)	Exit surveys and interviews
Presentations / oral defenses	Alumni surveys and interviews
Classroom exams or quizzes	Employer surveys and interviews
Classroom/homework assignments	Job placement data
Course projects	Admission to graduate / professional programs
Papers (research, term, creative, etc.)	Information from advisory boards
Internships or practicums	
Design projects	
Practical clinical assessments	
Artistic creations or performances	
Classroom discussions	
Online discussions	
Licensure / certification examinations	
Publications / presentations	

Examples of non-measures of student learning provided by the HLC:

- questionnaires asking students if their personal goals for the course or major or program have been met
- data on the quality of the curriculum and other aspects of a program
- faculty publications and recognition

- the kinds of courses or majors students select, including course enrollments and course profiles
- faculty/student ratios
- the percentage of students who study abroad
- enrollment trends
- the percentage of students who graduate with the baccalaureate in five years
- the diversity of the student body
- course grades and GPAs

There are several important guidelines to consider when identifying appropriate measures for your outcomes:

1. *Avoid creating additional tests or other assessment activities simply to satisfy your assessment data collection needs.* It should be possible to identify exams or other measures of student learning that already occur as part of your existing instruction and testing activities. If you have difficulty identifying appropriate measures for an outcome, you may want to consider whether students are being adequately tested on the outcome – or whether the outcome is appropriate for your program. If the outcome is an important one, but is not adequately measured, program faculty will need to identify appropriate measures.

2. *Course grades are not appropriate measures of student learning. It is appropriate to use the grade on a specific exam, project, etc. that specifically measures student learning on the outcome.* Course grades are based on overall satisfaction of course requirements rather than performance on a specific program-level outcome. Those course requirements typically include several course-level outcomes that are likely related to more than one program outcome. Course grades frequently include credit for attendance, class participation or other things unrelated to program outcomes. Course grades alone do not provide specific information about the concepts mastered by students or those concepts that proved challenging – important information for faculty to consider if they want to improve student learning over time.

3. *Course completion is not an appropriate measure of student learning.* Avoid using completion of a single course or sequence of courses as a measure. The issues are the same as with course grades.

4. *Identify at least one direct measure.* The second measure can be direct or indirect.

5. *Identify a specific measure.* Rather than saying “tests,” say “Final exam in XXX 353, Senior Capstone.” Rather than “research papers,” say “Research paper in XXX 234.” By identifying a specific exam or assignment in a specific course, you are creating a data collection plan for your program assessment. For surveys, indicate the specific item(s) to be used to measure the outcome. For example, “Exit survey item that asks the extent to which the XXX Program helped students to develop their analytical thinking skills.” Otherwise you may be leaving your data collection to chance and fail to collect important information about your students’ learning.

6. *Don't write a long description of the measure.* It is not necessary to describe the content of an exam or assignment, a rationale for its inclusion in your assessment, or the scoring method you will use. This level of detail is appropriate to record in any program or departmental notes or minutes you will maintain.

7. *Don't combine multiple measures into one.* Avoid saying "exams and assignments in XXX 235." You may decide to combine the scores for multiple quizzes or homework assignments, to identify a specific subset of test items that relate to the outcome, or to identify a specific subset of survey items that relate to the outcome. It is appropriate to do so, and you may want to describe your measure as an aggregate (e.g. mean score) on the quizzes or items used.

8. *It can be appropriate to use the same measure for more than one outcome.* Capstone projects and other complex culminating student products typically measure student performance on multiple program outcomes, and are rich sources of information about students' ability to apply knowledge from across the curriculum.

Exercise 9: Write a direct measure for your outcome. Use the space below, and check the guidelines in the right column to identify any problems with your measure.

Use the space below to write a direct measure for your outcome. Check the guidelines in the right column to identify any problems with your measure.

Measure 1.1 (Direct)	Are the guidelines met?
	<input type="checkbox"/> No unnecessary tests for assessment purposes
	<input type="checkbox"/> No course grades
	<input type="checkbox"/> No course completions
	<input type="checkbox"/> At least one direct measure
	<input type="checkbox"/> Specific measure
	<input type="checkbox"/> No long description
	<input type="checkbox"/> No multiple measures

Exercise 10: Write an indirect measure for your outcome. Use the space below, and check the guidelines in the right column to identify any problems with your measure.

Use the space below to write an indirect measure for your outcome. Check the guidelines in the right column to identify any problems with your measure.

Measure 1.2 (Indirect)	Are the guidelines met?
	<input type="checkbox"/> No unnecessary tests for assessment purposes
	<input type="checkbox"/> No course grades
	<input type="checkbox"/> No course completions
	<input type="checkbox"/> Specific measure
	<input type="checkbox"/> No long description
	<input type="checkbox"/> No multiple measures

Adapted from: *The Assessment Handbook*, Arizona State University, pp. 23-24 and the *Academic Program Assessment Packet*, University of Northern Illinois, pp. 4-5. Used with permission.