

Assessment: Working Vocabulary and Operational Definitions

What is assessment?

In lay terms, assessment is student oriented, and should be useful to departments and programs.

1. **What do we want our students to learn?** (knowledge, skills, dispositions – define “Learning Outcomes”)
2. **How are we doing?** (gather evidence from “Measures” – define what it means to be successful, e.g. set “Targets”)
3. **How can we do better?** (look for ways to improve outcomes and assessment, implement and start the cycle again to see if improvement has in fact occurred – e.g. develop an “action plan” aimed at “closing the loop”)

More specifically:

Assessment is a process aimed at helping faculty and departments improve student learning through a feedback loop. The process is cyclic and iterative in setting objectives, gathering data, and using the data to make changes that will improve the attainment of the objectives. At its heart, assessment involves four main components:

- 1) a list of specific, measurable* **student learning outcomes** (knowledge, skills, or dispositions we want our students to attain);
- 2) **measures/indicators** (tools that allow us to measure* student learning outcomes);
- 3) **targets** (specific goals for student learning that are tied to each measure); and
- 4) an **action plan** that “closes the loop” (e.g. that uses the results of the measures with respect to the targets to make changes in our teaching or curriculum that will improve the attainment of learning objectives by our students).

At any one time, a strong assessment program may be focused on a subset of learning outcomes and measures, but ideally the process should be continual, systematic, and systemic.

* This refers to anything that indicates the extent to which (how well) a student has achieved the expected learning outcome.

On the following pages you will find definitions of important vocabulary and assessment components. We hope you will find this useful.

Important Vocabulary/Assessment Components

Student Learning Outcomes: Specific and concise statements of what we want our students to learn. These should relate to the mission and goals articulated by the department and university. Learning outcomes are typically related to knowledge, skills, and dispositions that we expect of our graduates, and are often worded in a “students will demonstrate / be able to ...” format. Common learning outcomes relate to the disciplinary knowledge base, research skills, critical thinking skills, application of knowledge and skills in solving problems, communication skills, values, and attainment of career objectives. These may be closely tied to those identified by a disciplinary association for a particular field, e.g. The American Chemical Society.

Examples:

- “ Students will develop a comprehensive knowledge base in the field, and be able to identify and explain the central concepts. ” [This could be refined to indicate specific knowledge areas from foundational and advanced topic matter.]
- “Students will communicate effectively in both written and oral forms.”
- “Students will be able to recognize, develop, defend, and criticize arguments in the field.”
- “Students will demonstrate the ability to work as part of a group and to respect a diversity of opinions and backgrounds.”

Measures /Indicators : Tools that allow us to measure or demonstrate the extent to which student learning outcomes have been achieved. Measures are often classified as “direct” or “indirect” depending on whether they directly measure specific outcomes, or whether they measure some more aggregate or less specific evidence of students having learned.

Examples of Direct Measures:

- Scores on comprehensive, course specific, or standardized examinations that test specific learning outcomes, for example knowledge base or problem-solving skills.
- Quantitative and qualitative assessments of work samples (e.g. a paper produced in a course) that are tied to specific learning outcomes, for example communication skill or critical thinking.
- Performance on capstone projects, such as a senior thesis, oral defense, portfolio, where the performance is evaluated through a standardized rubric.

Examples of Indirect Measures:

- Course grades
- Course evaluations
- Placement data on graduates
- Student/alumni satisfaction with their learning, collected through surveys, exit interviews, or focus groups
- Honors and awards earned by students and alumni

Targets: Specific levels of achievement tied to each measure that would indicate a successful outcome. Targets should have a justifiable rationale, and should be identified in each assessment cycle with having been met, partially met, or not met, with the results being used to develop an action plan.

Examples:

- X% percent of students should have a score above Y on an examination.
- X% of senior students should achieve graduation with distinction on the basis of their senior thesis.
- X% of senior students should achieve a score of Y on their final capstone paper or project.
- Students in the new course Y will outperform students in the previous of the course on a common final examination.

Action Plan: The action plan is essential to a successful assessment effort in using the results to “close the loop” by making changes aimed at improving the attainment of student learning outcomes.

Examples:

- Revisions to the mission and goals of the program, as well as to the assessment process itself.
- Curricular revisions: new or revised courses, new course sequences, new ways of teaching courses, changes to course requirements for the major.
- Faculty development: mentoring and advising, adoption of new teaching methodologies.
- Student development: expanding research participation, or deepening the experience.

For your **Annual Assessment Reports**, you should address the following questions:

1. What outcomes were you scheduled to assess during this reporting period, and what outcomes did you assess?
2. What evidence did you collect? Summarize your findings.
3. What did you and your faculty learn about the effectiveness of your program in enabling students to achieve the outcomes? Strengths and weaknesses.
4. As a result of your assessment, what changes have been implemented or are being considered to address areas for improvement? Can include changes in both the program and the assessment plan.
5. What outcomes are you planning to assess in the next reporting period?