Preparing Learning Outcomes and Measures for Academic Plans

The Graduate College, in collaboration with the University Office of Evaluation and Educational Effectiveness, brings you this practical guide in order to assist you in the planning or evaluation process by providing tangible examples and do’s and don’ts. For additional information, please visit uoeee.asu.edu/assessment. The time you invest now will save time later and will ensure that you are able to collect high-quality assessment data.

Program/Learning Outcomes
Program outcomes are the intended learning outcomes of an academic program. They are demonstrated knowledge and skills your graduates will have acquired by the completion of the program. They answer the question, “What should program graduates know and be able to do?” For new plans, identify at least three learning outcomes.

Guidelines for Graduate Program Outcomes
Acceptable program outcomes should:
1. Support the mission of the university, college, school, division and department.
2. Directly relate to the program's academic discipline.
3. Be observable and measurable.
4. Focus on learning outcomes (student learning), not curricular inputs such as department resources, instructional methods, etc.
5. Communicate a single outcome rather than combine multiple outcomes into a single statement.
6. Assess student performance at program benchmarks and milestones, as well as at program completion.

Do’s and Don'ts:

Graduate Program Outcome Examples

Nutrition

“Students graduating from the MS program will demonstrate general competency in nutrition research.”

“Students graduating from the MS program will demonstrate competence in the collection, interpretation, and communication of nutrition research.”

Theatre

“Students graduating from the MFA program will be knowledgeable about the history of theatre.”

“Students graduating from the MFA program will be able to recognize major movements and critical issues in the history of theatre to articulate new interpretations of theatre works.”

Assessment and Measures

Once you have identified the program outcomes, you can think of specific methods for measuring the knowledge and skills students should possess. It is appropriate, and often preferable, to use the same measure for more than one outcome.

Capstone projects, doctoral dissertations 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. The measure you write can be direct or indirect, quantitative or qualitative, objective or subjective.

Guidelines for Creating Effective Measures

1. Avoid creating additional tests or other assessment activities and instead try to identify exams or other measures of student learning that already occur as part of existing instruction and testing activities.
2. Do not use course grades and/or course completion as a measure of student learning. However, assignment grades can be an appropriate measure, if the assignment measures student learning on a specific outcome.
3. Identify at least two measures for each program outcome. One must be a direct measure; others may be direct or indirect.
4. Measures should be specific. Identifying a specific exam (for example) in a specific course creates a plan for data collection for the program assessment.
5. Extensive description of the measure and rationale for its inclusion is not necessary.
6. Avoid combining multiple measures as one. For example, an exam and a paper in a course should be two separate measures.
7. Ensure the measure aligns with the outcome, in that it directly illuminates the outcome it is intended to assess.
Examples of Measures

Direct vs. Indirect

**Direct measures**
Students demonstrate their learning through a performance of some kind.

Examples of Direct Measures
- Capstone, applied project, portfolio, theses, dissertations.
- Presentations or oral defenses.
- Course and design projects.
- Artistic creations or performances.
- Classroom/homework assignments.
- Classroom/online discussions.
- Classroom exams or quizzes.
- Practical clinical assessments.
- Licensure/certification exams.
- Papers (research, term, creative, etc.).
- Internships.

**Indirect measures**
Provide information from which we can draw inferences about student learning.

Examples of Indirect Measures
- Student surveys and focus groups.
- Exit/alumni surveys and interviews.
- Employer surveys and interviews.
- Course evaluations.
- Job placement data.
- Admission to doctoral programs (for master's programs).

Quantitative vs. Qualitative

Consider developing a balance of both quantitative and qualitative measures.

**Quantitative measures**
Entails the collection of meaningful numbers that can be used for further analysis.

Examples include:
- Survey data,
- Performance criteria.

**Qualitative measures**
Require the use of common criteria to look for recurring patterns and themes within student work.

Examples include:
- Interviews, observations of students and faculty, etc.

Objective vs. Subjective

Keep in mind that your chosen measures may involve objective or subjective responses. Consider the advantages of each.

**Objective measures**
Have a single correct answer—is either correct or incorrect.

Advantages:
- Provide information on a broad range of learning goals on a single measure.
- Encourage broader learning than subjective assessments.
- Fast and easy to score.
- Can be easily summarized.

**Subjective measures**
Consist of multiple components that can each be assessed for their individual quality.

Advantages:
- Evaluate many important skills that objective measures cannot.
- Promote deep and lasting learning.
- Assesses skills directly