

# Curriculum Assessment: Creating Direct and Indirect Assessments

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# Learning Outcomes for this Workshop

Workshop attendees should be able to do the following:

- Explain why collecting and using assessment data is valued by people interested in the quality of teaching
- Distinguish between direct and indirect assessments
- Distinguish between quantitative and qualitative assessments
- Create multiple measures to assess a particular skill or ability
- Describe how useful curriculum assessments might be embedded in existing classes

# Why do Assessment?

What do we want to achieve?

How will we know if we have achieved it?

- Formative evaluation
- Measure & document program effects
- Is the program meeting the objectives stated in its mission statement?
- Assessment data can be used to obtain resources from internal & external sources
- Assessment data may influence university decisions about funding policies & procedures

# Assessment as an empirical approach to making decisions about teaching & learning

## Good assessments are good research

- Driven by a good question
- Collect good data
  - Reliable
  - Valid
- Create comparisons that produce a meaningful answer to the question
- Determine how the data will be used to make a decision

# Value of Assessment

Assessments allow us to answer the following questions:

- What should students be learning? In what ways should they be growing?
- What are students actually learning? In what ways are they actually growing?
- What should you be doing to facilitate student learning and growth? How might you change assignments or instructional activities to improve actual student learning?

*Adapted from the University of Wisconsin-Madison Using Assessment for Academic Program Improvement, (April 2000).*

# I assign grades – isn't that assessment?

- Grades are global assessments
- Grades assess overall proficiency but are imprecise
- Grades do not provide detailed information about the specific strengths and weaknesses that contribute to an overall level of proficiency
- Assessment intended for program development requires information about specific strengths and weaknesses

# Student work can be evaluated in a variety of ways

## Type of Assessment

- Multiple choice exams
- Low-stakes writing assignments (thought questions, short reaction papers)
- High-stakes writing (literature reviews, research proposals/reports)

## Purpose: What is Assessed?

- Factual content
- Feedback on writing; assess immediate understanding of a topic just discussed
- Higher-level comprehension and analysis

# Direct Assessments

- **Require students to display their knowledge and skills as they respond to the instrument itself.**
- **Examples:**
  - All or a portion of students' term papers or lab reports
  - Objective tests, essays, presentations, and classroom assignments.
  - Assignments based on capstone experiences (papers, portfolios)
  - Externally reviewed performances or exhibitions (musical, theatrical, dance, art exhibits, etc.)
  - Performance on state or national licensure, certification, or professional examinations
  - Standardized tests (nationally standardized or locally developed)

# Indirect Assessments

- Surveys and interviews that ask students to reflect on their learning rather than to demonstrate it
  - Self-reports on student performance
- Surveys and interviews with knowledgeable others (employers, clients, parents) about student performance
- Examples:
  - Alumni or student surveys
  - Employer surveys of satisfaction with student competence to perform the job
  - Exit interviews or focus groups (graduating students or alumni)
  - Interviews with instructors, residence hall leaders, and others who have contact with students

# Comparison of Direct & Indirect Measures

## Direct Measures

- Reliability & Validity can be excellent
- Objective behavior is less easily distorted to enhance self-image of the person engaged in the behavior
- Some behaviors may be difficult to observe directly (e.g., attitudes)

## Indirect Measures

- May exhibit problems with either reliability or validity
- Students may have difficulty accurately assessing their own strengths and weaknesses
- Validity may be undermined by the motivation to present oneself in a positive light

# Other Methods

- **Qualitative measures** (interviews, focus groups)
- **Passive measures** (unobtrusive measures)
  - Student data base information
  - Patterns of course selection & attendance
- **Assignments embedded in capstone courses**
  - Make sure that the course adequately represents the requirements of the major
  - Do students enrolled in this course create a representative sample of graduates?
  - Evaluation of the assignment is done consistently across sections

# Using Rubrics to Create Valid Assessments for Curriculum Development

- Assessment of ALCs may depend on a subset of rubric elements (creating a useful disconnect between assignment of student grades and use of assessments for curriculum development)

# Creating a Rubric

# Identify and describe elements of the work that will be assessed

## ■ Content elements

- *e.g.*, Thoroughness of literature review

## ■ Critical thinking elements

- *e.g.*, Use of evidence to support arguments

## ■ Communication elements

- Organization and logic of argument
- Mechanics of writing (grammar, spelling, punctuation)
- Use of editorial style of the discipline

# Determine weighting & number of categories of quality to use for each element

## ■ **Two categories**

- 0: Absent or Unsatisfactory
- 1: Present or Satisfactory

## ■ **Three categories**

- Below Expectations (1)
  - Meets Expectations (2)
  - Exceeds Expectations (3)
- Pay attention to the relative contributions of elements to the overall grade

# Describe each category used in the rubric

- Descriptions should communicate why work was placed in this category
- Provide clear feedback about those aspects of the work that were deficient
- Provide clear information about your expectations for adequate and exemplary work

# Example of descriptive material for a 4-level evaluation scale

Relevance of essay answer to the question asked.

- 0 – The essay did not answer the question. **(missing)**
- 1 – Answer is incomplete. Excessive discussion of unrelated issues and/or significant errors in content. **(unacceptable)**
- 2 – Answer is rather brief with insufficient detail. Unrelated issues were introduced and/or minor errors in content **(below expectations)**
- 3 – Answer is brief but complete; answer focuses only on issues related to the question; factually correct **(meets expectations)**
- 4 – Answer is complete; sufficient detail provided to support assertions; includes an original and relevant insight or analysis of the question **(exceeds expectations – bonus point)**

# Embedded Assessments

- **Graded student work that serves a double purpose**
  - Work is a course requirement that determines part of the course grade
  - Work is also evaluated with a rubric for use in assessment of departmental goals
- **Ensures that students are motivated to produce their best efforts**
- **Ensures a representative sample of students (all majors will take this course and complete this work at some time)**