

Assessment 301: Student Learning Outcomes, Measurement, and Assessment

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Workshop Goals

- Review the relationship of the alignment matrix developed in Assessment 201 with program level assessment
- Discuss methods of assessment that are appropriate at program and course levels
- Identify strengths and weaknesses of different forms of assessment
- Identify new assessments to incorporate into one's classes

Courses align with Program Outcomes

Underwater Basket Weaving – Matrix of Program Learning Outcomes matched to Courses

Outcomes (going across): Courses (going down):	Literacy	Global perspective	Communication	Critical/analytical thinking	Interdisciplinary product	Ethical/moral and appreciation	Process, nature of sciences, arts	Identify and harness suitable resources	Generate the appropriate length of time needed to accomplish by seeking	Design original weaving patterns	Weave reeds into design pattern	Obtain SCBA certification	Weave reeds while underwater
UBW 101	X		X	X	X		X	X	X		X	X	
UBW 110		X	X				X	X		X		X	X
UBW 156		X	X				X		X	X	X	X	X
UBW 215	X			X	X	X	X	X					X
UBW 290	X		X		X		X	X		X			
UBW 350					X		X	X	X				X
UBW 470	X		X		X	X	X	X	X		X		X
UBW 495		X	X	X			X	X	X		X		X
Course #													
Course #													
Course #													

Assessment at the Program Level

- Compare student performance in entry- and capstone-level courses
- Student surveys
- Use matrix to trace back to course level

Assessment at the Course Level

- How do you measure student learning in *your* courses?
- Turn to someone sitting near you and list different ways you measure students' learning in your classes.
- Be prepared to report out in 5 minutes.

There are more...

- Published tests (Standardized test)
- Locally developed test
- Course embedded assignments and activities
- Capstone evaluation
- Portfolios
- Videotape and audiotape evaluation
- Pre-test/Post-test
- Competence interview
- Thesis evaluation
- Curriculum and syllabus analysis (input assessment)
- External reviewers (peer review)
- Surveys
- Reflective essay
- Interview

Different ways to assess learning

- Direct measures provide evidence of:
 - Whether or not students grasp specific subject or content area
 - Whether or not students can perform a specific task
- Indirect measures provide evidence of:
 - Behaviors that correlate with learning
 - Attitudes and perceptions about learning

Direct Assessments...

- Provide evidence of:
 - Student mastery of content
 - Student mastery of skills
- Answer the questions:
 - How much did they learn?
 - How well did they learn it?
- Don't answer the questions:
 - Why did they learn?
 - How did they learn?

Indirect Assessments...

- Provide evidence related to:
 - Behaviors associated with learning
 - Attitudes about learning
- Answer the questions:
 - Why did they learn?
 - How did they learn?
- Don't answer the questions:
 - How much did they learn?
 - How well did they learn it?

Direct, Indirect Measures useful for

- Institutions
- Programs
- Courses

Institutional Level Assessment

Direct

- Performance on tests of writing, critical thinking, or general knowledge (e.g. Collegiate Learning Assessment - CLA)
- Rubric scores for class assignments in General Education

Indirect

- Locally-developed, commercial, or national surveys of student perceptions or self-report of activities (e.g., National Survey of Student Engagement)
- Transcript studies that examine patterns and trends of course selection and grading
- Annual reports including institutional benchmarks, such as graduation and retention rates, grade point averages of graduates, etc.
- D/D-F report

Program Level

Direct

- Capstone projects
- Senior theses
- Senior exhibits or performances
- Licensure, certification
- Publications or conference presentations
- Employer or internship supervisor ratings of students' performance
- Entry and exit test comparison

Indirect

- Focus group interviews with students, faculty members, or employers
- Registration or course enrollment information
- Department or program review data on job placement
- Employer or alumni surveys
- Student perception surveys
- Proportion of upper-level courses as compared to the same program at other institutions
- Graduate school placement rates

Course Level Assessment

Direct measures:

- Homework assignments
- Examinations and quizzes
- Standardized tests
- Projects
- Case study analysis
- Rubric scores for writing, oral presentations and performances
- Artistic performances and products
- Grades that are based on explicit criteria related to clear learning goals

Indirect Measures:

- Course Evaluation
- Test blueprints (outlines of the concepts and skills covered on tests)
- Number of student hours spent at intellectual or cultural activities related to the course

Use Multiple Measures

- Different instruments measure different types of outcomes
- Use more than one type of assessment so they complement each other.
- Each type of assessment instrument has its own strengths and weaknesses.

Each method has its strength and Limitation: e.g., Standardized Test

Potential strength

- Used in association with cognitive learning objectives
- Review student achievement with respect to a common body of knowledge associated with a discipline or program
- Good validity and reliability
- Makes institutional comparisons possible
- Test can be given to large numbers of students and does not require faculty involvement
- Online versions are increasingly available and provide immediate scoring
- More?

Potential limitation

- The test might not reflect the learning objectives that faculty value
- Students may not take the test seriously
- Test can be expensive
- More?

Choose methods wisely

- 1) What level are you assessing: institutional, program, or course?
- 2) What learning outcomes are you assessing: cognitive, skills, or affective?
- 3) Use more than one method: direct and indirect complement each other

Add an Assessment Instrument

- Looking at the lists of assessment instruments, identify one you can incorporate into one of your classes.
 - Choose an instrument that complements what you already do.
- Be prepared to report out in 5 minutes.

Next Steps

- Look at the types of assessments you are currently using, with an eye to balance:
 - Direct vs. indirect, etc.
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Final Thoughts...

- Keep the project manageable!

Bite Less and Chew More

Questions?