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

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 audiocassette 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.
- Consult with Shifang as needed
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Final Thoughts…

- Keep the project manageable!

Bite Less and Chew More

Questions?