Introduction to Student Learning Outcomes Assessment Workshop

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Workshop overview

I. Context
II. Concept Definitions
III. What is “Good” Assessment
IV. Steps of Assessment

Workshop Objectives

Participants will be able to:
- Define assessment and other major concepts
- Explain the elements of “good” assessment
- Describe the steps of assessment
- Evaluate student learning outcome statements
- Distinguish types of assessment methods
- Describe various ways assessment results can be used

Teaching-Learning-Assessment Cycle

1. Learning Outcomes
2. Learning opportunities
3. Assess
4. Use results

I. Concept Definitions

Assessment is

“The systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and development.”

Ted Marchese
Learning Goals are

statements that describe broad learning concepts, for example clear communication, problem solving, and ethical awareness.

Example:
To develop the student’s problem-solving skills, especially those required to analyze, design and implement computer-based solutions.

Learning Outcomes are

specific statements that describe what we want students to know, to be able to do, or to value as a result of this learning experience.

Example:
Students will apply a current software life cycle model to the development of software systems.

II. What is “good” assessment?

1. Good assessments are useful (and used)
   • Measure what we intend to measure (validity)
   • Yield consistent results across administrations (reliability)
   • Give us useful information specific to learning outcomes
   • Give us reasonably accurate, truthful information

2. Good assessments are cost-effective
   • Keep it simple
   • Focus on a few (3-6) outcomes
   • Use samples
   • Make use of existing information
   • Stagger assessments

Laying the ground work

Mission

Goals
A mission statement defines

- Who are we?
- What do we do?
- For whom do we do it?

Example

The mission of the Department of Accounting is to offer graduate and undergraduate accounting programs of high quality, which meet the needs of the students preparing for professional careers in accounting. This mission includes providing a broad-based education as well as education in current business and accounting topics. The department is responsive to the needs of employers and other constituents of its programs. The department is also alert to the current issues in the local, regional, and national environment, and plans and implements changes in the educational process to respond to those issues when needed. The faculty of the accounting programs assist in accomplishing this mission through a planned integration of their teaching, intellectual, and service contribution.

UTSA Mission Statement

The University of Texas at San Antonio is dedicated to the advancement of knowledge through research and discovery, teaching and learning, community engagement, and public service. As an institution of access and excellence, UTSA embraces multicultural traditions, serving as a center for intellectual and creative resources as well as a catalyst for socioeconomic development - for Texas, the nation and the world.

Learning goals are

- general statements of an expectation for student learning;
- not defined in a way that can be measured;
- used to help organize your assessment plans and activities to focus on the essential aspects of student learning.

Common learning goals relate to

- Content knowledge
- Communication skills  
  - Writing  
  - Speech
- Information literacy/research skills
- Thinking skills/Creative Skills
- Interpersonal skills

Example learning goals:

“To prepare graduates who are able to work independently as well as a member of a team”

“To have students graduate from the program with the necessary skills and knowledge to succeed in XYZ industry”

“To prepare students to be contributing citizens in a global environment”

See Handout: Goals Worksheet
Goals versus outcomes

Goals are broad general intentions of what we want students to BE or HAVE intangible abstract not directly measurable

Outcomes are narrow precise indicators of what we want students to be able to DO tangible concrete can be measured directly

IV. Six Steps of Assessment

1. Write 3-6 expected Student Learning Outcomes (SLO)
2. Identify learning opportunities
3. Determine assessment methods
4. Establish criteria
5. Collect and analyze information
6. Use the results

See Handout: Steps for Developing a Program Assessment Plan

Step 1: Student Learning Outcomes

Knowledge Skills Attitudes

Example Learning Outcomes:

1. Architecture: Ability to prepare a comprehensive program for an architectural project
2. Communication: Apply audience analysis to the construction of oral and written messages
3. Criminal Justice: The student will produce graduate level written work that demonstrates competency in the critical analysis of justice related policy problems.

Example Learning Outcomes:

4. Interdisciplinary Studies: Demonstrate culturally relevant pedagogical skills
5. Management: Students will analyze legal business considerations relative to various cultural, ethical, political, economic, and global perspectives.
6. Mathematics: The student will design and implement solutions to practical problems in science and engineering.

“ABCs” of writing good Student learning outcomes

- **Audience** - Identify who will be learning
- **Behavior** - observable action
  - Design, Apply, Analyze
- **Clear** - no fuzzy terms such as Understand, Appreciate, Critical Thinking
- **Domain specific** - Knowledge, Skills, or Attitudes/values
- **Essential** - to program/discipline
  - Communication Skills, Information Literacy
**SWBAT and LWCT Stems**
- “The Student will be able to ___verb___…”
  - Cognitive outcomes
  - Psychomotor outcomes
- “The Learner will choose to ___verb___…”
  - Affective outcomes

See Handout: Action Verbs for Writing Learning Outcomes

**Four methods to determine outcomes**
1. Ideal Student
2. Collect and review current program goals
3. Review syllabi and classify course objectives
4. Review other programs

**HOW TO: Prioritize and achieve consensus on learning outcomes**
- Review syllabi for common outcomes
- Ask faculty what their goals are for each course
- Ask faculty to list three things all students should be able to do upon graduation
  then
- Compile, Share, Discuss, Vote

**Step 2: Identify learning opportunities**
1. Create a grid

<table>
<thead>
<tr>
<th>Course 1</th>
<th>Course 2</th>
<th>Course 3</th>
<th>Course 4</th>
<th>Course 5</th>
<th>Course 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome 1</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outcome 2</td>
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<td></td>
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<tr>
<td>Outcome 3</td>
<td></td>
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</tr>
</tbody>
</table>

**Identify Learning Opportunities**
1. Create a grid
Identify Learning Opportunities

2. Ask faculty to check off which outcomes are addressed in each course or requirement that they teach.

<table>
<thead>
<tr>
<th>Course 1</th>
<th>Course 2</th>
<th>Course 3</th>
<th>Course 4</th>
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</tr>
</thead>
<tbody>
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<td>Outcome 1</td>
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<tr>
<td>Outcome 2</td>
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</tr>
<tr>
<td>Outcome 3</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Identify Learning Opportunities - Method 2

1. Create a grid

<table>
<thead>
<tr>
<th>Course 1</th>
<th>Course 2</th>
<th>Course 3</th>
<th>Course 4</th>
<th>Course 5</th>
<th>Course 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outcome 2</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Outcome 3</td>
<td></td>
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</tr>
</tbody>
</table>

Identify Learning Opportunities - Method 2

2. Review syllabi and make a judgment to determine if the outcomes are Introduced, Emphasized, or Reinforced in a course

<table>
<thead>
<tr>
<th>Course 1</th>
<th>Course 2</th>
<th>Course 3</th>
<th>Course 4</th>
<th>Course 5</th>
<th>Course 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome 1</td>
<td>I</td>
<td>R</td>
<td>E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outcome 2</td>
<td>I</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outcome 3</td>
<td>E</td>
<td>R</td>
<td>E</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Problems you might find

- Lack of Attention
- Lack of Continuity
- Lack of Balance

Step 3: Determine assessment methods (See Exercise B Part 1)

Assessment Methods

**Direct**
- Tests
- Rubrics
- Portfolios
- Capstone projects
- Field Supervisor ratings
- Employer ratings
- Scores on licensure exams

**Indirect**
- Surveys
- Focus Groups
- Course Evaluations
- Admission to graduate school
- Student self-ratings
- Alumni satisfaction with learning
- Honors, awards
What is the problem with the following statement?
“Eighty-seven percent of our students get an A or B in XYZ Course”

Why not just use course grades?
• Course grade often:
  - contain other criteria beyond learning such as participation, attendance, etc.
  - don’t provide enough detailed information about what students actually learned

Course grades illustration

<table>
<thead>
<tr>
<th>Learning Outcomes</th>
<th>Student A</th>
<th>Student B</th>
<th>Student C</th>
<th>Student D</th>
<th>Student E</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome I</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>2.6</td>
</tr>
<tr>
<td>Outcome II</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>3.4</td>
</tr>
<tr>
<td>Outcome III</td>
<td>4</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>3.5</td>
</tr>
<tr>
<td>Outcome IV</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>3.8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>13</td>
<td>17</td>
<td>10</td>
<td>12</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>GRADE</td>
<td>C</td>
<td>A</td>
<td>D</td>
<td>C</td>
<td>B</td>
<td></td>
</tr>
</tbody>
</table>

Instead look for information already on hand
• Tests
• Papers, projects, performances
  - Especially in capstones
• Field Supervisor evaluations
• Surveys & self-ratings

Useful and not too much work
• Rubrics*
• Test blueprints
• Reflective writing on attitudes and values (one-minute papers)

* See Handout: Sample Rubrics

Useful but more time & work
• Additional tests
• Additional surveys
• Additional focus groups
• Additional portfolios
Tool: Course-embedded assessment
- Collection of information generated in the classroom for assessment of the program
- Uses material already generated by students
- Or faculty can create new materials that will be used for purposes of assessment.
- Cost-efficient
- Students motivation is less of a factor than with some other methods

Techniques: Course-embedded assessment
- Questions embedded in exams
  - Evaluate common questions across sections
- Essays, Case studies, Presentations
  - Use rubrics to evaluate performance

HOW TO: Course-embedded assessment
1. Curriculum Map
2. Faculty map their course objectives to program outcomes
3. Develop course-based assessment methods (define who, when, what)
4. Each faculty who is doing this gathers summary data on their course
5. Feed data into assessment system and decision making

How To: Create a rubric
- Identify learning outcome
- Specify performance areas to be measured
- Define levels of performance poorest to best
- Assign ratings to each level of performance
- Devise a scoring procedure

See: Sample Rubrics handout

Adapted from: Presentation by Larry Kelly “Embedding assessment of Student learning outcomes in regularly scheduled assignments.”

Best Practice: Assessment Methods
1. Emphasize direct methods over indirect
2. Use multiple methods to assess each outcome
3. Triangulate information to maximize decision-making

Step 4: Establish criteria
Step 4: Establish criteria

Example statements:
- At least 75% of the employers will be satisfied with the ethical conduct and the knowledge of ethical standards of our graduates.
- Practicum students should receive an average field supervisor rating of 4.25 (85%) or better on a 5 point scale.
- The average ratings of each year’s Thesis I Papers will be 4.25 or better on a 5 point scale.

Caution:
Set a standard of expected student performance **ONLY** if you have a basis to set a standard.

Step 5: Collect and analyze information

- Make a schedule
  - When information is to be collected
  - How often it will be analyzed
  - How often it will be reported
- Assign responsibility
  - Collection of information
  - Analysis

Step 6: Use the results to make

- **Changes to curriculum**
  - changes in teaching practices
  - revision or enforcement of prerequisites
  - revision of course sequence
  - revision of course content
  - addition of course(s)
  - deletion of course(s)
Step 6: Use the results to make

- **Changes to academic processes**
  - modification of frequency or schedule of course offerings
  - improvements of technology
  - implement additional training
  - other implemented or planned change

- **Changes to assessment plan**
  - revision of student learning outcome statement(s)
  - revision of assessment methods
  - collection of and analysis of additional data and information
  - changes of data collection methods

What about adjuncts?

- Provide common core materials
  - Syllabi
  - Learning outcomes
  - Assignments/tests
- Require participation in contract
- Invite to professional development
- Assign a coordinator for adjunct heavy courses/programs

Bottom line

- Assess what you value
- Keep assessment useful
- Keep assessment cost-effective
  - Especially time
- Recognize that some important outcomes can’t be assessed
- Make a plan and work the plan

See Handouts: Developing a Program Assessment Plan
Assessment Planning Matrix

Exercise C: Next Steps

Thank you for your attention and participation

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