Assessment Basics: Student Learning Outcomes

Faculty Senate Assessment Committee

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February/March 2013
Today

Goals

- Increase awareness of assessment expectations.
  - Focusing on learning outcomes.

Outcomes

- Draft measurable student learning outcomes.
- Use Bloom’s taxonomy
- Evaluate learning outcomes.
Assessment

- A process of gathering information to develop a deeper understanding of what students know or can do as a result of their educational experiences; culminating when results are shared and used to improve programs.
Assessment Cycle

1) Select learning outcome(s) to be assessed.
2) Locate demonstrations of outcome(s) and collect student work products.
3) Analyze student work and determine to what extent students are meeting expectations.
4) Share and discuss results internally.
5) Determine (if appropriate) actions for program improvement (and also the assessment activities).

Create Clearly Articulated Learning Outcomes
Goals, Outcomes, & Objectives

- **Goals:** Broad description of what will occur in a course or program.
  - This course is an introduction to research problems, designs, and procedures.

- **Outcomes:** Brief statements that describe essential learning that students can demonstrate at the end of a course or program.
  - At the end of this course students can design and execute a research study.

- **Objectives:** Specific skills and knowledge that students can exhibit that reflect the broader outcomes and goals.
  - Frame a research question
  - Conduct a literature review
  - Develop a testable hypothesis
  - Design a feasible research protocol...
Characteristics of Effective Learning Outcomes

- focus on the most essential learning
- student, not instructor, centered
- clear and specific
- use concrete action verbs
- observable/assessable/measurable
Identifying Essential Learning

What is it that we want our students to know or be able to do at the completion of an educational experience?
Identifying Essential Learning

- At the end of this degree program:
  - Students will know . . . .
  - Students will be able to . . . .
Identifying Essential Learning

- At the end of this degree program:
  - Students will know . . . .
  - Students be able to . . . .

- Or
  - What are the 3 or 4 most important things that your graduates will be able to do?
  - What are the 3 or 4 things you would be most embarrassed to learn that your students cannot do?
Your turn

• Identify a program, course or other learning experience.
  • Use the materials you brought with you or brainstorm about the 2 or 3 examples of essential learning.
  • Write down 2 or 3 examples of the most important things your students will know or be able to do at the end of the experience.
Your turn

- Pair up and explain
  - Is learning (not teaching) is described?
  - Why the learning described has endurance?
    - Important to retain.
  - How competency in this area helps students across the curriculum?
Bloom’s Taxonomy

- Knowledge--Knowing
- Comprehension--Understanding
- Application--Applying
- Analysis--Analyzing
- Synthesis--Creating
- Evaluation--Evaluating
## Concrete Verbs


<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Comprehension</th>
<th>Application</th>
<th>Analysis</th>
<th>Synthesis</th>
<th>Evaluation</th>
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</thead>
<tbody>
<tr>
<td>Recall previously learned material.</td>
<td>Grasps meaning of information</td>
<td>Apply learning to new situations.</td>
<td>Logically differentiate between the content and the structure of material.</td>
<td>Create new content and structures.</td>
<td>Judge the value of material for a given purpose.</td>
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</thead>
<tbody>
<tr>
<td>Duplicate</td>
<td>Label</td>
<td>Classify</td>
<td>Operate</td>
<td>Differentiate</td>
<td>Assemble</td>
</tr>
<tr>
<td>List</td>
<td>Describe</td>
<td>Practice</td>
<td>Distinguish</td>
<td>Construct</td>
<td>Critique</td>
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<tr>
<td>Repeat</td>
<td>Explain</td>
<td>Prepare</td>
<td>Infer</td>
<td>Design</td>
<td>Defend</td>
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<tr>
<td>State</td>
<td>Paraphrase</td>
<td>Sketch</td>
<td>Interpret</td>
<td>Generate</td>
<td>Justify</td>
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<tr>
<td></td>
<td>Provide example</td>
<td>Solve</td>
<td>Investigate</td>
<td>Plan</td>
<td>Support</td>
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Learning Outcome Checklist

<table>
<thead>
<tr>
<th>Question</th>
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<tbody>
<tr>
<td>Is the learning outcome student/learner centered?</td>
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<tr>
<td>Does the outcome address essential learning?</td>
<td></td>
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<tr>
<td>Does the outcome contain an active/concrete verb?</td>
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<tr>
<td>Is the outcome observable? Can the outcome be measured/assessed?</td>
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<tr>
<td>Does the outcome address what a student should be able to do at the completion of the program (course or other educational experience)?</td>
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<tr>
<td>Check, are the outcomes consistent with professional standards and program mission documents?</td>
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<tr>
<td>Is the outcome written in language that relevant audiences will understand?</td>
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<tr>
<td>Are the number of outcomes reasonable to assess?</td>
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Evaluate and Improve

1) This workshop will address copyright and fair use in presentations.

2) The curriculum will introduce students to the major research methods of the field.

3) Students will develop an appreciation of contemporary theorists in the discipline.

4) Students will learn how to make well-developed arguments.
Evaluate and Improve

1) This workshop will address copyright and fair use in presentations.
   - Students describe principles of fair use and write policy for application in a library.

2) The curriculum will introduce students to the major research methods of the field.
   - Students will be able to explain the differences between research methods and identify the strengths and limitations of research designs.

3) Students will develop an appreciation of contemporary theorists in the discipline.
   - Students will be able to apply the work of contemporary theorists to problems relevant to the discipline.

4) Students will learn how to make well-developed arguments.
   - Students will develop a thesis about the issue, locate and analyze evidence, and draw well-supported conclusions.
Your Turn

- Refer to most important/essential learning in the program
- Keep it student/learner centered
- Apply Bloom’s taxonomy to determine appropriate level of demonstrating learning
- Use concrete, action verbs
- Review against checklist
- Share
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