Assessment Basics

Opening Day Presentation
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What are “Learning Outcomes”

Learning outcomes are clear and assessable statements that define what a student will know or be able to do at the end of a course or program.

Learning outcomes provide a focus and a standard for the classroom or program.
# Objectives vs. Outcomes

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Outcomes</th>
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</thead>
<tbody>
<tr>
<td>Course content</td>
<td>What students will know or be able to do with the course content</td>
</tr>
<tr>
<td>Numerous, specific &amp; detailed</td>
<td>End product that can be displayed and evaluated</td>
</tr>
</tbody>
</table>
Bloom’s Cognitive Levels

- Creating
- Evaluating
- Analyzing
- Applying
- Understanding
- Knowledge
  “Remembering”
Sample outcomes based upon the story of Goldilocks and the Three Bears

Remember: Describe where Goldilocks lived.
Understand: Summarize what the Goldilocks story was about.
Apply: Construct a theory as to why Goldilocks went into the house.
Analyze: Differentiate between how Goldilocks reacted and how you would react in each story event.
Evaluate: Assess whether or not you think this really happened to Goldilocks.
Create: Compose a song, skit, poem, or rap to convey the Goldilocks story in a new form.
Why Use Bloom’s Taxonomy?

- Provides measurement tools for thinking
- Identifies levels of acquiring and using knowledge or skills
- Pinpoints what instructors will teach and how they will go about teaching
## Bloom’s Taxonomy

<table>
<thead>
<tr>
<th>Cognitive Level</th>
<th>Illustrative Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Create</strong>: Can the students create a new project or point of view?</td>
<td>assemble, construct, create, design, develop, formulate, write.</td>
</tr>
<tr>
<td><strong>Evaluate</strong>: Can the student justify a stand or decision?</td>
<td>appraise, argue, defend, judge, select, support, value, evaluate</td>
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<tr>
<td><strong>Analyze</strong>: Can the student distinguish between the different parts?</td>
<td>appraise, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, question, test.</td>
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<tr>
<td><strong>Apply</strong>: Can the student use information in a new way?</td>
<td>choose, demonstrate, dramatize, employ, illustrate, interpret, operate, schedule, sketch, solve, use, write.</td>
</tr>
<tr>
<td><strong>Understand</strong>: Can the student explain ideas or concepts?</td>
<td>classify, describe, discuss, explain, identify, locate, recognize, report, select, translate, paraphrase</td>
</tr>
<tr>
<td><strong>Remember</strong>: Can the student recall information?</td>
<td>define, duplicate, list, memorize, recall, repeat, reproduce, state</td>
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</table>
Knowledge: Retrieving, recalling, or recognizing

Assessments for “Remembering” Outcomes

- Definitions tests
- Matching tests
- List key ideas
- Multiple-choice tests
- Labeling diagrams

Verbs
- define, duplicate, list, memorize, recall, repeat, reproduce, state
**Comprehension:** interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining.

**Assessments for “Understanding” Outcomes**

- Discussion
- Short-answer exam
- Report
- Summary
- Explanation

**Verbs**
classify, describe, discuss, explain, identify, locate, recognize, report, select, translate, paraphrase
Assessments for “Applying” Outcomes

- Presentations
- Scenario situations
- Problem-solving (apply X to...)
- Using formulas, models or equipment
- Performance (for application of technique)

**Verbs**
choose, demonstrate, dramatize, employ, illustrate, interpret, operate, schedule, sketch, solve, use, write.
Assessments for “Analyzing” Outcomes

- Written assignments
  - compare and contrast to show
  - analysis of case studies
  - analysis of theories, research or philosophy
- Debates
- Problem-solving
  (show why X does...)

Verbs

appraise, compare, contrast, criticize, deconstructs, differentiates, discriminate, distinguish, examine, experiment, question, test.
Assessments for “Evaluating” Outcomes

- Self- and peer-assessment (specific assignment or portfolio, using rubric)
- Written assignments that
  - Develop an argument
  - Evaluate research
  - Compare and contrast to prove...
  - Critique
- Short-answer exam where students select and justify

Verbs

appraises, compares, concludes, contrasts, criticizes, critiques, defends, discriminates, evaluates, judge, justifies, relates, supports.
Assessments for “Creating” Outcomes

- Project
- Presentation
- Performance
- Portfolio
- Capstone project
- Creative writing assignments
- Assessments for this category should be as “authentic” as possible

**Verbs**
assemble, construct, combines, compiles, composes, creates, devises, designs, develops, formulates, generates, modifies, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, writes.
Mrs. Macintosh wants her students to compare and contrast two Native American folktales and the cultures each represents. At which level of thought is Mrs. Macintosh asking her students to work according to Bloom’s Taxonomy?

a. Remembering
b. Understanding
c. Analyzing
Mrs. Smith has asked her students to classify the items in a diagram as living or nonliving. At what level of Bloom’s Taxonomy is she having her students think?

a. Understanding
b. Applying
c. Evaluating
Students in Mrs. McElveen’s class have been asked to read a research article and summarize it in their own words. At which level of Bloom’s Taxonomy is she asking them to think?

a. Understanding
b. Remembering
c. Applying
Mrs. Hodge has asked students to list every possible way to answer the math word problem on the board. Then she asks them to choose the best method for solving the problem and to defend their answers. At which level of Bloom’s Taxonomy is she asking them to think?

a. Creating
b. Analyzing
c. Evaluating
Mrs. Andrews assigned the following tasks as part of a reading lesson. Place them in order of their location on the revised Bloom’s Taxonomy from *lowest* to *highest*.

1. Place the events of the story in chronological order.
2. Write a new ending for the story.
3. Choose one of the story’s characters as a “best friend” and justify your choice.
4. On what date did this story begin?

a. 1, 2, 3, 4
b. 4, 1, 3, 2
c. 4, 1, 2, 3
d. 1, 4, 3, 2
<table>
<thead>
<tr>
<th>Course SLOs</th>
<th>Means of Assessment &amp; Benchmarks / Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>07/10/2009</td>
<td></td>
</tr>
<tr>
<td><strong>Course Outcome Status:</strong></td>
<td>Assessment Method:</td>
</tr>
<tr>
<td>Active</td>
<td>Exit exam at time of final exam for course.</td>
</tr>
<tr>
<td><strong>Discipline (AJ) - Administration of Justice -</strong></td>
<td>Assessment Method Category:</td>
</tr>
<tr>
<td>ADM JUS 001 - INTRO ADM JUSTICE - SLO 2 - Identify the three subsystems within</td>
<td>Exam/Quiz</td>
</tr>
<tr>
<td>the criminal justice system, and understand</td>
<td>Benchmark:</td>
</tr>
<tr>
<td>the levels of government jurisdiction upon</td>
<td>70% of students correctly answer test item.</td>
</tr>
<tr>
<td>which they operate.</td>
<td></td>
</tr>
<tr>
<td><strong>Start Date:</strong></td>
<td></td>
</tr>
<tr>
<td>07/27/2009</td>
<td></td>
</tr>
<tr>
<td><strong>Course Outcome Status:</strong></td>
<td></td>
</tr>
<tr>
<td>Active</td>
<td></td>
</tr>
</tbody>
</table>
Discipline (CAOT) - CAOT - CAOT 002 - COMPUTER KEYBOARDING II - SLO 2 - Produce two documents: a modified block-style business letter with formatted table and a business report with formatted clip art.

Assessment Method:
Administer a common final exam. The exam has 2 parts with a total point value of 90 points. This production part has a point value of 40 pts.

Assessment Method Category: Exam/Quiz

Benchmark:
Common rubrics scale will be used to evaluate each document.

a. Business letter (20 pts.)
b. Business report (20 pts.)

70% of the students will meet the goal of scoring at least 70% on each component.

Course Outcome Status:
Active
Assessment Method:
Given short texts written at an appropriate level, students will be able to summarize the main points with accuracy.

Assessment Method Category:
Exam/Quiz
Discipline (LifeSci) - Anatomy - ANATOMY 001 - INTRO HUMAN ANAT A - SLO 1 -
Upon completing this course, students will be able to demonstrate proper dissecting technique to expose cat muscles, identify them and their actions.

Assessment Method:
10 short answer questions on identification of cat skeletal muscles as part of lab practical

Assessment Method Category:
Practicum

Benchmark:
70% of students score 70% or more on assessment tool

Start Date :
02/08/2010

End Date :
06/07/2010

Course Outcome Status:
Active
Discipline (Mathematics) - Mathematics - MATH 107 - HOW TO DO WORD PROBLEMS - SLO 2 - Students will use a sequence of logical mathematical steps to solve applied problems and correctly state the final answer.

Course Outcome Status: Active

Assessment Method:
On an exam or quiz, students will be given a word problem and asked to show all steps and correctly state the final answer.

Assessment Method Category:
Exam/Quiz

Benchmark:
Satisfactory
Assessment Method:
(Pre/Post Test) All students are surveyed to demonstrate the ability to identify one democratic and one nondemocratic country, and explain essential differences between the two governments. A random selection of surveys are assessed.

Assessment Method Category:
Survey

Benchmark:
Benchmark determined by observing improvement, over prior semesters, in the percentage of students with satisfactory and excellent responses as opposed to unsatisfactory responses.
1. A form of assessment in which students are asked to perform real-world tasks that demonstrate meaningful application of essential knowledge and skills -- Jon Mueller

2. The tasks are either replicas of or analogous to the kinds of problems faced by adult citizens and consumers or professionals in the field." - - Grant Wiggins -- (Wiggins, 1993, p. 229).
Why use authentic assessment?

We do not just want students to know the content of the disciplines when they graduate. We, of course, want them to be able to use the acquired knowledge and skills in the real world. So, our assessments have to also tell us if students can apply what they have learned in authentic situations. If a student does well on a test of knowledge we might infer that the student could also apply that knowledge. But that is rather indirect evidence. --Jon Mueller
From Non-authentic To Authentic Assessment

- Students will list the components of a good diet.
- Students perform a dietary analysis for a student-client.
- Students develop an outline of an essay.
- Students craft a persuasive letter for a legislator on an issue.
- Students describe how to work in groups.
- Students participate in a group project.
- Students list the way the products can be marketed.
- Students create a poster that markets a product.
- Students identify the parts of the scientific method.
- Students apply the scientific method to reach a conclusion.
Thank You