LEARNING OUTCOME WORKSHOP

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Director of Assessment at UTD

August 2015
Outcomes of today:

Summarize the purpose of assessment at UTD

Write well crafted course student learning outcomes
IMPROVEMENT VS ACCOUNTABILITY

EWELL, 2009
THE EXCELLENT STUDENT

- What can they do?
- What do they know?
How do you know?
Why have learning outcomes?
IMPLICIT
TO
EXPLICIT
A E I O U

COUNT THE VOWELS.
DIFFERENCE BETWEEN 1ST AND 2ND ATTEMPT?
1. WE KNEW THE TASK
2. WE KNEW HOW THE INFORMATION WAS ORGANIZED
LEARNING OUTCOMES

- Student Centered
- Comprehensive
- Aligned/related
- Degree appropriate
- Measurable
LEARNING OUTCOMES

- “SMART”
- Specific
- Measurable
- Appropriate
- Realistic
- Time-bound
GOOD OUTCOME OR NOT?
Students will demonstrate an understanding of art history.
Students will explain concepts of history on the impact of current events.
Students will understand mathematical theories.
Students will solve mathematical problems.
Students will think critically.
Students will gather survey information about a target audience and make decisions of how to market to this group.
TOP DOWN VS BOTTOM UP
BLOOMS TAXONOMY
next one:

Assessing student learning workshop

October 14, 2015 at 10am

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Learning outcomes workshop
August 12, 2015

Questions? gloria@utdallas.edu

GOALS

THE EXCELLENT STUDENT
LEARNING OUTCOMES

Student centered
Comprehensive
Aligned
Degree appropriate
Measurable

“SMART”
Specific
Measurable
Appropriate
Realistic
Time-bound
Bloom's taxonomy
This pyramid shows different levels of thinking when we learn. Each section builds on the previous one. Thus, we must learn the lower levels before we can move to the higher levels of the pyramid.

**KNOWLEDGE**
Memorizing verbatim information (rote). Being able to remember, but not necessarily understanding the material fully.

**COMPREHENSION**
Taking the information and restating it in your own words (higher level of understanding the information).

**APPLICATION**
Using the information to solve problems. Seeing relationships and connections and how they apply.

**ANALYSIS**
Break down the parts and identify components. Determining the logic and sequence.

**EVALUATION**
Judge based on standards. Understand values of the information to make decisions.

**SYNTHESIS**
Take the information and create a new (original) product.
### Bloom’s Taxonomy
(Revised from Anderson & Krathwohl, 2001)

<table>
<thead>
<tr>
<th>Knowledge/Remember</th>
<th>Comprehension/Understand</th>
<th>Application/Apply</th>
<th>Analysis/Analyze</th>
<th>Evaluation/Evaluate</th>
<th>Synthesis/Create</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retrieve from long term memory</td>
<td>Connect new learning to prior knowledge</td>
<td>Follow procedures to solve problems</td>
<td>Break down, relate parts and whole</td>
<td>Judge based on standards/criteria</td>
<td>Produce the new</td>
</tr>
<tr>
<td>Cite</td>
<td>Arrange</td>
<td>Apply</td>
<td>Analyze</td>
<td>Appraise</td>
<td>Arrange</td>
</tr>
<tr>
<td>Define</td>
<td>Classify</td>
<td>Change</td>
<td>Calculate</td>
<td>Assess</td>
<td>Assemble</td>
</tr>
<tr>
<td>Duplication</td>
<td>Convert</td>
<td>Compute</td>
<td>Categorize</td>
<td>Check</td>
<td>Collect</td>
</tr>
<tr>
<td>Find</td>
<td>Defend</td>
<td>Construct</td>
<td>Compare</td>
<td>Choose</td>
<td>Combine</td>
</tr>
<tr>
<td>Identify</td>
<td>Describe</td>
<td>Demonstrate</td>
<td>Contrast</td>
<td>Conclude</td>
<td>Compile</td>
</tr>
<tr>
<td>Indicate</td>
<td>Diagram</td>
<td>Discover</td>
<td>Criticize</td>
<td>Criticize</td>
<td>Compose</td>
</tr>
<tr>
<td>Know</td>
<td>Discuss</td>
<td>Dramatize</td>
<td>Debate</td>
<td>Decide</td>
<td>Construct</td>
</tr>
<tr>
<td>Label</td>
<td>Distinguish</td>
<td>Employ</td>
<td>Deconstruct</td>
<td>Evaluate</td>
<td>Create</td>
</tr>
<tr>
<td>List</td>
<td>Estimate</td>
<td>Execute</td>
<td>Determine</td>
<td>Experiment</td>
<td>Create</td>
</tr>
<tr>
<td>Match</td>
<td>Explain</td>
<td>Illustrate</td>
<td>Diagram</td>
<td>Grade</td>
<td>Design</td>
</tr>
<tr>
<td>Memorize</td>
<td>Extend</td>
<td>Implement</td>
<td>Differentiate</td>
<td>Hypothesize</td>
<td>Formulate</td>
</tr>
<tr>
<td>Name</td>
<td>Generalize</td>
<td>Interpret</td>
<td>Distinguish</td>
<td>Generate</td>
<td>Generate</td>
</tr>
<tr>
<td>Outline</td>
<td>Give examples</td>
<td>Investigate</td>
<td>Examine</td>
<td>Invent</td>
<td>Invent</td>
</tr>
<tr>
<td>Recall</td>
<td>Infer</td>
<td>Manipulate</td>
<td>Illustrate</td>
<td>Inter</td>
<td>Invent</td>
</tr>
<tr>
<td>Recognize</td>
<td>Locate</td>
<td>Operate</td>
<td>Infer</td>
<td>Interpret</td>
<td>Inter</td>
</tr>
<tr>
<td>Record</td>
<td>Outline</td>
<td>Practice</td>
<td>Inspect</td>
<td>Judge</td>
<td>Inter</td>
</tr>
<tr>
<td>Repeat</td>
<td>Paraphrase</td>
<td>Predict</td>
<td>Organize</td>
<td>Justify</td>
<td>Inter</td>
</tr>
<tr>
<td>Reproduce</td>
<td>Report</td>
<td>Prepare</td>
<td>Outline</td>
<td>Measure</td>
<td>Inter</td>
</tr>
<tr>
<td>Retrieve</td>
<td>Restate</td>
<td>Produce</td>
<td>Question</td>
<td>Rate</td>
<td>Rate</td>
</tr>
<tr>
<td>Reproduce</td>
<td>Review</td>
<td>Schedule</td>
<td>Relate</td>
<td>Score</td>
<td>Rate</td>
</tr>
<tr>
<td>State</td>
<td>Suggest</td>
<td>Sketch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underline</td>
<td>Summarize</td>
<td>Solve</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Translate</td>
<td>Translate</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Application sheet
(What are you going to do with all this?)

Directions: Take a moment to recall the ideas, techniques, and strategies we've discussed. Quickly list as many possible applications as you can. These are possibilities—you can always evaluate the desirability and/or feasibility later.

Interesting IDEAS/TECHNIQUES
from this workshop

Some possible APPLICATIONS
of those ideas/techniques to my work

# UTD Course Student Learning Outcomes Rubric

<table>
<thead>
<tr>
<th>Needs Work</th>
<th>Acceptable*</th>
<th>Outstanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student centered: Is the SLO describing what a student can do, believe, or knows?</td>
<td>☐ SLO is not a learning outcome; instead it is: ☐ an aspirational statement ☐ a learning process (e.g. internship)**</td>
<td>☐ Statements say clearly what what a student knows, can do, and believes. ☐ Outcomes are specific (one outcome per statement).</td>
</tr>
<tr>
<td>Comprehensive: Does the SLO cover what a student will gain from the class?</td>
<td>☐ Significant areas of the class overlooked ☐ Too narrow: Single assessment data point for all learning outcomes</td>
<td>☐ SLOs are realistic of what students gain from one semester. ☐ Well organized—a roadmap for students to the purpose of course</td>
</tr>
<tr>
<td>Alignment/Related: Is the SLO related and aligned to the program mission?</td>
<td>☐ No relationship between SLOs &amp; program mission ☐ No relationship between SLOs &amp; curriculum</td>
<td>☐ Curriculum map used (does not have to be included) ☐ SLOs are explicitly and intentionally related and aligned.</td>
</tr>
<tr>
<td>Degree Appropriate: Do the SLO fit the level of learning for that degree level?</td>
<td>☐ No identifiable difference in outcomes between degree programs (BS/BA, MS, PhD)</td>
<td>☐ Clear distinction between course learning outcomes for BS/BA, MS, and PhD ☐ Increasing complexity in learning with higher degree levels</td>
</tr>
<tr>
<td>Measurable: Are there data available that can be used to easily determine if SLOs have been met?</td>
<td>☐ Verbs used are somewhat vague—not clear how the outcomes will be measured. ☐ It is unclear how the data are connected to the SLOs and/or how they will demonstrate that the SLOs have or have not been met.</td>
<td>☐ SLOs are time-bound. ☐ The verbs used are action verbs and it is easy to see how they might be assessed. ☐ The data are well connected to the SLOs and it is clear how these data will determine if the SLOs have been met.</td>
</tr>
</tbody>
</table>

Additional written comments:

*The acceptable column has been left intentionally blank.

** “Students will complete an internship” is not appropriate, instead write what students can do or knows once the internship is done.