Learning Outcomes

CENTER FOR TEACHING & LEARNING (CTL)
NYU SHANGHAI
After this session you will be able to:

- Explain why certain verbiage is inappropriate for Learning Outcomes

- Use Bloom's Taxonomy to identify appropriate verbiage for creating Learning Outcomes.

- Create appropriately scaffolded Learning Outcomes for your classes
What are Learning Outcomes?

Learning Outcomes are what you want your students to be able to know, value and do, after taking your class.

**Know:** Cognitive, information, mental skills, processes

**Value:** Affective, attitudes, ethics, professionalism

**Do:** Psychomotor, perform, draw, execute
Specific, Measurable, Attainable, Relevant and Time Based Learning Outcomes Should Be:
Words to Avoid:
Know, Understand, Learn, Appreciate, Believe, Improve, Approach, Increase, Become, Grow

Why do we avoid such words? Because we can’t measure whether our students understand something without having them perform a task to demonstrate their knowledge.
For example: if I want to **know** whether my students can distinguish the difference between contour and negative space, I would ask them to **categorize** the following drawings.

<table>
<thead>
<tr>
<th>Contour</th>
<th>Negative Space</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.jpg" alt="Contour Image 1" /></td>
<td><img src="image2.jpg" alt="Negative Space Image 1" /></td>
</tr>
<tr>
<td><img src="image3.jpg" alt="Contour Image 2" /></td>
<td><img src="image4.jpg" alt="Negative Space Image 2" /></td>
</tr>
</tbody>
</table>
Taxonomies:

-Taxonomies describe how humans gain proficiency in knowledge, dispositions and actions

-They help us target proficiency levels and choose verbiage for our learning outcomes

-The three taxonomies are called cognitive, affective and psychomotor. We will concentrate on the cognitive.
Cognitive: Bloom’s Taxonomy

Bloom’s Taxonomy

- **Remember**
  - Recall facts and basic concepts
    - define, duplicate, list, memorize, repeat, state

- **Understand**
  - Explain ideas or concepts
    - classify, describe, discuss, explain, identify, locate, recognize, report, select, translate

- **Apply**
  - Use information in new situations
    - execute, implement, solve, use, demonstrate, interpret, operate, schedule, sketch

- **Analyze**
  - Draw connections among ideas
    - differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test

- **Evaluate**
  - Justify a stand or decision
    - appraise, argue, defend, judge, select, support, value, critique, weigh

- **Create**
  - Produce new or original work
    - design, assemble, construct, conjecture, develop, formulate, author, investigate

Courtesy of Vanderbilt University Center for Teaching
Bloom’s Taxonomy debuted in 1956 and was updated in 2001.

- Each taxonomy layer targets an increasingly complex skill level.
Cognitive: Bloom’s Taxonomy

To create a learning outcome:

1. **Determine** the target proficiency level

2. **Choose** corresponding action verbs that relate to your assessments

3. **Build** the learning outcome around that word

Courtesy of [Vanderbilt University Center for Teaching](http://www.vanderbilt.edu/teaching/)

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**Bloom’s Taxonomy**

- **Remember**: Recall facts and basic concepts (define, duplicate, list, memorize, repeat, state)
- **Understand**: Explain ideas or concepts (classify, describe, discuss, explain, identify, locate, recognize, report, select, translate)
- **Apply**: Use information in new situations (execute, implement, solve, use, demonstrate, interpret, operate, schedule, switch)
- **Analyze**: Draw connections among ideas (differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test)
- **Evaluate**: Justify a stand or decision (appraise, argue, defend, judge, select, support, value, critique, weigh)
- **Create**: Produce new or original work (design, assemble, construct, conjecture, develop, formulate, author, investigate)
Taxonomies and Verb Lists:

- For action verbs corresponding to the levels in the 01’ version, click **here**, for the 56’ version click **here**.

- For an affective domain taxonomy click **here**.

- For a psychomotor domain taxonomy click **here**.

Courtesy of [Vanderbilt University Center for Teaching](http://www.teaching.vanderbilt.edu)
Examples of Cognitive Learning Outcomes:

1. Effectively **explain** the health effects of climate change to the public and policymakers and **influence** changes in climate-related health behavior.

   **Explain** corresponds to Taxonomy level L2 – Understanding, and **Influences** targets L5 – Evaluating.

2. **Develops** a central argument based on a well-informed grasp of the relevant academic writing

   **Develop** corresponds to Taxonomy level L3 – Applying
Reflective Prompts for Learning Outcomes:

1. Do your learning outcomes and the University’s program outcomes align? If not, revaluate.

2. Do your learning outcomes align with your classroom assessments, activities, concepts, etc.
References:


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