Creating Learning Outcomes

Natasja Saranchuk
Educational Developer
CTL
Clarifying terminology

- **Goals:**
  - Are general statements of teaching intentions written from the teacher’s point of view to indicate the general content.

- **Objectives:**
  - Are specific statements of teaching intentions i.e., specific areas to be covered in a block of learning.
  - **NOTE:** Because of confusion in the literature about this term sometimes referring to teaching intentions and other times to expected learning, we will only be using the term outcomes.

- **Outcomes:**
  - Are statements of what a learner is expected to know understand and/or be able to demonstrate after the completion of a process of learning.

Kennedy, Hyland & Ryan, 2006
About Learning Outcomes

- Learning outcomes should be:
  - appropriate to course level
  - clear and understandable to students
  - measurable – of something useful and meaningful
  - attainable
  - aligned with goals and assessments

- Example learning outcome:
  “By the end of this course, students will be able to classify reactions as exothermic and endothermic.”
Outcomes inform....

- **instructors** of:
  - the content, teaching/learning activities, and assessment.
  - criteria for evaluating student performance.
  - how successful a learning activity has been.

- **students:**
  - as a framework to guide their studies by telling students very specifically what we intend for them to learn or do.

- **both:**
  - about whether students have gained the appropriate skills, attitudes, and/or knowledge.
Outcome phrase

- By the end of this **course**, students will be able to (**action verb**) (**the knowledge, skill or attitude**).

- Eg. “By the end of this course, students will be able to **classify** reactions as exothermic and endothermic.”
# Bloom’s Taxonomy *revised*

<table>
<thead>
<tr>
<th>Cognitive domain</th>
<th>Example verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Higher level</strong></td>
<td></td>
</tr>
<tr>
<td>Creating</td>
<td>compose, design, develop</td>
</tr>
<tr>
<td>Evaluating</td>
<td>critique, evaluate, justify, hypothesize</td>
</tr>
<tr>
<td><strong>Mid level</strong></td>
<td></td>
</tr>
<tr>
<td>Analyzing</td>
<td>compare, determine, integrate</td>
</tr>
<tr>
<td>Applying</td>
<td>demonstrate, carry out, implement</td>
</tr>
<tr>
<td><strong>Lower level</strong></td>
<td></td>
</tr>
<tr>
<td>Understanding</td>
<td>explain, interpret, classify</td>
</tr>
<tr>
<td>Remembering</td>
<td>describe, list, define</td>
</tr>
</tbody>
</table>
## Goals and accompanying outcomes

<table>
<thead>
<tr>
<th>Goal</th>
<th>By the end of the module students will be able to…</th>
<th>Bloom’s Taxonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>To introduce students to modes of satiric writing in the eighteenth century.</td>
<td><strong>analyze</strong> the relationship between the language of satire to literary form.</td>
<td>Low</td>
</tr>
<tr>
<td>To become acquainted with topographic maps and their usage.</td>
<td><strong>identify</strong> major landform features on topographic maps and <strong>relate</strong> them to basic geologic processes.</td>
<td>X</td>
</tr>
</tbody>
</table>
Unclear vs. clear outcomes

Unclear: You will know major periods in the history of western music.

Clearer outcome: By the end of the course, you will be able to identify and summarize the important features of major periods in the history of western music.

Unclear: You will understand the process of photosynthesis.

Clearer outcome: After this module, you will be able to describe the main processes of photosynthesis.
Activity: rewrite the outcome

Rewrite the following outcome to make it clear for the students in your discipline.

- Unclear: Students will understand how to critically read research articles.

Clearer outcome example: By the end of the course, you will critique a research article by providing a summary, discussion and supported evaluation of the work.
Tips for writing outcomes

- Think SMART:
  - Specific, Measurable, Attainable, Relevant, Time-bound

- Avoid vague, unmeasurable verbs such as: understand, know, realize, comprehend, think, experience, become familiar with, etc.

- Group similar outcomes of same topic into one
  - (eg. ‘describes functions of the heart and describes functions of the liver’ into ‘describes functions of major body organs’)

Before and After

- **Before** you create outcomes, think about where your course fits in the program – what learning needs to occur before or after your course (i.e. prerequisites).

- **After** you create your outcomes, think about what assessments will provide you with the student work (evidence) you will examine to determine if the outcomes have been achieved.
FAQ’s

- Do ALL student learning outcomes need to be assessed?
- Can a course learning outcome be the same as a program learning outcome?
- How many learning outcomes should I have for my course?
- If I teach an intro course, should all my outcomes fall in the low end of Bloom’s taxonomy?
Activity: Outcomes for your course

Return to the goals you wrote earlier and choose one or two for which to write specific learning outcomes.
Check:

- Does the language describe student rather than teacher behaviors?
- Are the outcomes written at the appropriate level for this audience?
- Do the outcomes reflect the appropriate level of thinking (i.e. higher order vs. lower order)?
- Can the learning outcomes be realistically achieved within the timeframe?