

# Review of Online Module

## Week 3: Learning Objectives

### Module 3: Learning Objectives and Their Uses

**Author: Stephanie Chasteen, University of Colorado at Boulder**

#### Learning goals of the online module

1. Explain the value of developing learning goals and objectives
2. Begin to articulate broad educational goals and values
3. Contrast course-scale learning goals and topic-scale learning objectives, in terms of their scope, value, and utility.
4. Develop and communicate learning objectives clearly for a given topic
5. Justify the choice of a particular learning objective
6. Identify the cognitive level of learning objectives or assessments using Bloom's Taxonomy
7. Recognize the value of aligning assessments, instructional practices, and learning objectives
8. Propose assessments to test student achievement of a learning objective at a given cognitive level

#### Description of main activities of online module

##### Online Videos

- The Frustrated Student: The Problem – Dr. Stephanie Chasteen from University of Colorado Boulder introduces a case study designed to generate discussion about the issues that students can face when taking higher level courses in STEM fields and asks several graduate students to discuss this study.
- The Frustrated Student: The Solution - Dr. Stephanie Chasteen from University of Colorado Boulder facilitates the discussion between the graduate students from the previous video to illuminate possible solutions aimed at how professors can avoid the common issues students face in these course.
- Learning Objectives vs. Syllabi - Dr. Stephanie Chasteen and others from University of Colorado Boulder provide their definitions of learning objectives/goals. They go on to discuss the differences between learning objectives and points on a syllabus.
- Why Do We Need Learning Objectives - Dr. Stephanie Chasteen and others from University of Colorado Boulder illuminate common issues professors and students encounter in the classroom, laying the foundation for why learning objectives are important.
- How can Learning Objectives be Helpful? - Dr. Stephanie Chasteen from University of Colorado Boulder and others discuss how learning goals and objectives have improved their instruction and the success of their students.
- Introduction to Backwards Design - Dr. Stephanie Chasteen and others from University of Colorado Boulder introduce the concept of backward design. They discuss why backward design is useful and how to effectively implement this concept in course design.
- Course Scale Goals vs. Topic Level Objectives - Dr. Stephanie Chasteen and others from University of Colorado Boulder define learning goals vs. learning objectives and how they are related.

- How to Align Objectives and Assessments in Your Course - Dr. Stephanie Chasteen and others from University of Colorado Boulder address the importance of aligning your learning objectives and your assessment techniques. They go on to provide examples regarding how to effectively align learning objectives and assessment techniques.
- What does it mean to understand something? - Dr. Stephanie Chasteen and others from University of Colorado Boulder discuss how instructors can “unpack” their larger learning goals into smaller learning objectives and importance of making sure all of the objectives fit under a larger learning goal.
- Breaking Down a Topic - Dr. Stephanie Chasteen from University of Colorado Boulder facilitates a discussion among several graduate student teaching assistants concerning breaking down larger learning goals into focused learning objectives.
- Mapping the Terrain: What should they know, and how deeply? Part 1 - Dr. Stephanie Chasteen and others from University of Colorado Boulder introduce different types of learning that an instructor can take advantage of and how fitting your learning objectives into one of these categories can facilitate the creation of effective learning objectives and goals. They go on to discuss Bloom’s Taxonomy and how it relates to these different categories of learning.
- Mapping the Terrain: What should they know, and how deeply? Part 2 - Dr. Stephanie Chasteen and others from University of Colorado Boulder provide a more in depth discussion of Bloom’s Taxonomy and the importance of considering and defining the types of learning goals and objectives the instructor would like students to achieve at the end of the course or a section of the course.
- Making Your Objectives Useful: Potential Struggles - Dr. Stephanie Chasteen and others from University of Colorado Boulder address the importance of creating learning objectives that are clearly stated and understandable from the student’s perspective. They also discuss a number of potential issues that educators can run into when trying to express their learning objectives
- Making Your Objectives Useful: Checklist- Dr. Stephanie Chasteen and others from University of Colorado Boulder provide a checklist for creating effective learning objectives. They discuss examples of useful learning objectives vs learning objectives that are not as clear.
- Refining Your Objectives – Dr. Stephanie Chasteen from University of Colorado Boulder discusses how to effectively refine learning goals with a group of graduate students at her university.
- Institutional Considerations: Broader Context –
- Final Thoughts –

#### Online Discussion Questions (more fully described in the Coursera forum)

- When were you a 'frustrated student?' What happened, how did it impact you, and what could have been done?
- Think of a transformational educational experience. What made this so powerful? Based on your own post, and comparison to posts from other students, name some of the things that you value in education.
- Find 1-3 exam questions from a course you were in, or were a TA for. What was the learning objective for each question? How did the instructor accomplish that objective? How might they have done better?

- Choose a topic among those provided in the forum. What does it mean to understand that topic?
- In a course you took or taught recently, what were a few things that required learning at low levels of Bloom's Taxonomy? At higher levels of Bloom's? Within the provided list of learning goals, what are a few that target lower levels of Bloom's, and a few that target higher levels of Bloom's? Name some tasks from that same course that allowed student learning in the different areas of understanding – cognitive, metacognitive, affective, and procedural.
- Choose one or two of the objectives provided to "make over" into better, more easily assessed learning objectives.
- What questions or concerns do you have about the broader context of learning goals, within an institution or department?
- What are one or two ideas from the module that you want to be sure to remember? What do you think will be the most challenging?

Online Activities (Peer-graded assessment, for week 3, module 3)

- Explain why learning objectives are useful
- Write a learning goal, plus three learning objectives, and justify your choice.

## Activities for the MCLC In-person Sessions

### Module 3: Learning Objectives

#### Learning goal for MCLC in-person sessions

Students should be able to write topic-level learning objectives, and justify their alignment with course-level goals. Students should be able to critique and evaluate goals, including suggestions for improvement.

	<b>Student Activity/Discussion</b>	<b>Facilitator Notes</b>
<b>Warm-up</b>	Ask students to write a one-minute paper, "What does it look like when someone understands something?"	Give students a few minutes to write down their thoughts, and then facilitate a share-out of the ideas, writing down what students say on the board. Look for themes that reflect ideas from the module, such as level of knowledge, types of knowledge, or student behaviors/actions. You may discuss the need to communicate ones' expectations for student understanding through learning objectives, or the challenge of communicating this. Use this as a springboard to talk about the module content. You may wish to have students review the handout, "Creating and Using Effective Learning Goals" as a review of many of the messages of the module. Encourage them to bring in ideas from the module forum discussions.
<b>Discussion topic #1</b>	Provide students with the electronic list of learning goals in various courses. This is provided electronically at <a href="http://cwsei.ubc.ca/resources/learn_goals.htm">http://cwsei.ubc.ca/resources/learn_goals.htm</a> as well as within the online module. In small groups, have them read through course-level goals relevant to their discipline. <ul style="list-style-type: none"><li>• Which goals do they feel are appropriate, and why?</li><li>• Which goals would they improve?</li><li>• Why would they improve them, and how?</li></ul>	If the class is in a single discipline, it may be helpful to provide only those goals/objectives relevant to that discipline. After the small group work, have students share out from their discussion. Encourage them to bring in ideas from the module forum discussions.
<b>Discussion topic #2</b>	Students should pick one of the course-level learning goals that they find compelling. In the	You may want to pause the small group discussions after they have

	<p>same small groups, discuss the following questions:</p> <ul style="list-style-type: none"> <li>• What does it mean for a student to master this goal? Go through the process of "deconstructing" this goal, topic, or skill.</li> <li>• Now, write 1 or 2 topic-level learning objectives that would help a student master that course-level goal. You may want to use the Bloom's Level Verb list as a reference.</li> <li>• Use the learning objective checklist to critique and improve your goals as a group.</li> </ul>	<p>discussed what it means for a student to master that goal, in order to have a whole-group discussion. During the activity, circulate and prompt students to think deeply about their objectives. If they are writing low-level objectives, can you help them think of a higher-level objective? Allow at least 10 minutes for share-out, and focus on the process of writing goals during that share out. Encourage them to bring in ideas from the module forum discussions.</p>
<p><b>Connections to current or former instructional experiences</b></p>	<p>Discuss as a group, how would you use learning objectives in your instruction? How, practically, would this work? How might you use learning objectives in teaching statements or faculty applications?</p>	<p>Consider bringing in ideas from video 7 on institutional constraints, and video 8 on practical tips. Questions to consider are, when would you refer to your goals? When do you write your goals? How might you work with colleagues, especially if you plan to cut content from your course? Encourage them to bring in ideas from the module forum discussions.</p>