Writing Great Learning Objectives

Articulate Your Learning Objectives

Before you decide on the content to cover in your course, endow your course with a strong internal structure conducive to student learning.

Alignment among three main course components ensures an internally consistent structure. Alignment is when the:
- OBJECTIVES articulate the knowledge and skills you want students to acquire by the end of the course
- ASSESSMENTS allow the instructor to check the degree to which the students are meeting the learning objectives
- INSTRUCTIONAL STRATEGIES are chosen to foster student learning towards meeting the objectives

When these components are not aligned, students might rightfully complain that the test did not have anything to do with what was covered in class, or instructors might feel that even though students are earning a passing grade, they haven't really mastered the material at the desired level.

Aligning these three components is a dynamic process, since a change in one necessarily affects the other two.

One way to approach course design is to start from the learning objectives, then move on to the other two components, and revisit the cycle iteratively as needed.

Articulating your learning objectives will help:

- YOU select and organize course content, and determine appropriate assessments and instructional strategies.
- STUDENTS direct their learning efforts appropriately and monitor their own progress.

Learning objectives should be student-centered.

We, as instructors, often have a good idea of what we want to accomplish in a given course:
We want to cover certain topics, or we want to teach students certain ideas and skills.
We should also think in terms of what we want the students to be able to do at the end of the course. It is very helpful to articulate learning objectives by completing this prompt:
"At the end of the course, students should be able to _____."

Learning objectives should break down the task and focus on specific cognitive processes.

Many activities that faculty believe require a single skill (for example, writing or problem solving) actually involve a synthesis of many component skills.

To master these complex skills, students must practice and gain proficiency in the discrete component skills.
- writing may involve identifying an argument, enlisting appropriate evidence, organizing paragraphs, etc.
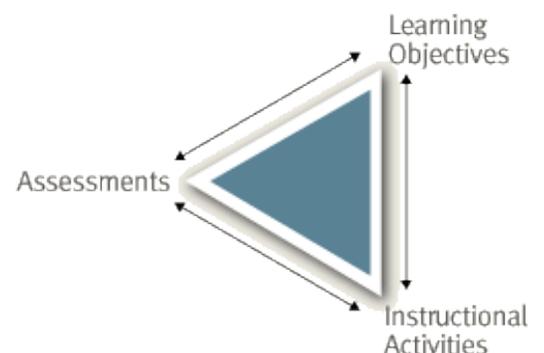
- problem solving may require defining the parameters of the problem, choosing appropriate formulas, etc.

Breaking down the skills will allow us to select appropriate assessments and instructional strategies so that students practice all component skills.

Learning objectives should use action verbs.

Focusing on concrete actions and behaviors allows us to make student learning explicit, and communicates to students the kind of intellectual effort we expect of them. Sample learning objectives for a math class might be:
- "State theorems" (implies memorization and recall)
- "Prove theorems" (implies applying knowledge)
- "Apply theorems to solve problems" (implies applying knowledge)
- "Decide when a given theorem applies" (involves meta-cognitive decision-making skills)

Using action verbs enables you to more easily measure the degree to which students can do what you expect them to do.

Learning objectives should be measurable.

Because learning objectives should guide the selection of assessments, they cannot be vague.
All of learning objectives we've exemplified are measurable in that they point to a clear assessment that can easily check whether students have mastered that skill (e.g., asking students to state a given theorem, giving students a thesis statement to prove, asking students to solve a textbook problem that requires the application of a theorem, or asking students which theorem they would use in a given situation).

Some learning objectives that are typically vague but are often used include:
- "Understand X"
- "Obtain a working knowledge of X"
- "Gain an appreciation for X"

These objectives can be clarified by asking ourselves:

"What would students do differently if they really 'understand' or 'appreciate' X?"

Articulating your learning objectives at the appropriate grain can be challenging at first. Here are some resources to help:
- Bloom's taxonomy – taxonomy created to categorize a continuum of educational objectives
- Samples of learning objectives from a variety of courses

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