



Writing Learning Outcomes

One of the challenges that instructors face is writing meaningful learning outcomes that effectively communicate to students your expectations for your course. Learning outcomes don't have to be difficult to write. In fact, the more clear and concise the language, the greater the likelihood that students will be able to use them to structure their learning.

What are learning outcomes?

A learning outcome answers the question: "What should students be able to do at the end of the class or course that they couldn't do before?" A learning outcome is aimed at the knowledge and skills you are going to teach. The focus is the product of instruction rather than what form the instruction will take.

A basic learning outcome might look something like the following. The student will be able to write an analysis of a poem, including how it uses analogy or metaphor. Or, the student should be able to calculate the energy transfer in a collision of two unequal masses. Note that the outcome is written using an action verb and an observable student behavior.

How do I write learning outcomes?

Begin with the end in mind.

When beginning to write outcomes, many instructors find it useful to start with a list of questions that the course will help students answer. Others consider the skills and abilities that students would need to develop to be successful in a field. Attitude changes are an often overlooked but important part of learning. Many instructors want their students to view the world or their situation differently after taking a course. So begin the process of writing outcomes by completing the following statements:

(Knowledge) By the end of the course, students will be able to recall . . .

(Skills) By the end of the course, students will be able to do . . .

(Attitudes) By the end of the course, students will choose to . . .

Format for clearly written objectives

There are a number of formats for writing clear objectives. We suggest the ABC method.

A stands for Antecedent

B stands for Behavior

C stands for Criterion

Using this format we might say: (A) After reading Chapter 8 in the text, the student will be able to (B) summarize in writing the principle of supply and demand, giving an example not presented in the book, (C) with at least 90% accuracy.

The antecedent then is the learning activity, the behavior is the skill or knowledge being demonstrated, and the criterion is the degree of acceptable performance.

In practice, the criterion is rarely explicitly stated in higher education outcomes since grading standards are set for the entire course and posted separately on the syllabus. A more useful way to write outcomes may be to add how you will measure success or, in other words, the assessment you will use to measure learning. An example of this format would be: By the end of this unit on Americans Divided, students will be able to explain the different ways Americans are divided by race, class, gender, and sexuality by writing a midterm paper that summarizes how these divisions are reflected in the movies.

Use the following template to help you write an appropriate learning outcome.

By the end of this unit on _____ students will be able to _____
the knowledge, concept, rule or skill *how they will apply their knowledge or skill /*
you expect them to acquire by *how you will assess their learning*

Make the outcome specific, check for action verbs and observable end products.

Often outcomes will be written using broad, vague verbs such as understand, learn, and know. An example might be: Students will gain a critical understanding of the historical foundations of American higher education.

There are two problems with this statement. First, the term understanding is too vague to be meaningful as a guide for performance for your students or as an assessment measure for you. A more specific, action oriented verb serves as a guide for students to focus their learning. "Am I being asked to memorize and recall this information or will I need to use this to solve a problem or apply it to a completely new situation?" Likewise from the instructor's perspective, action-oriented verbs give direction on how the learning item will be assessed as well as taught.

Second, the statement implies that the responsibility for learning falls on the instructor while students participate passively. Action verbs that focus on student performance communicate the expectation that the responsibility for learning is with the student. Students must be actively involved with the material to demonstrate successful completion of the outcome.

Of course, there are different types of learning outcomes. Some are easy, only requiring the simple recall of a definition. Others are more complex, requiring problem solving or evaluation. Still others focus on attitudes (choice behaviors) and motor skills.

Use the table below to help you select the learning outcome you want to achieve matched with an action verb. This is not an exhaustive list of verbs but should help you get well on your way to writing meaningful outcomes.

Types of Learning Outcomes	Action Terms	What Students Can Do
	Note 'understand' & 'discuss' are not offered	Be wary of testing at a learning outcome type that's different than the level the students learned & practiced at
Verbal Information (Knowledge)	STATE, define, list, name, identify, show, recall	Recall information
Concepts (Comprehension)	CLASSIFY, explain, describe, summarize, interpret, predict	Put something into a category of things; restate in their own words
Rules (Application)	DEMONSTRATE, relate, determine, apply, calculate, examine, modify, discover	Engage a rule, procedure or principle; transfer abstract ideas to practical solutions
Problem Solving (Analysis, Synthesis, Evaluate)	GENERATE, analyze, explain, arrange, rearrange, evaluate, integrate, modify, decide, compare	Generate a solution to a problem; make decisions and support views; determine and arrange components
Cognitive Strategies (Learning Strategies)	ADOPT, originate, create, design, plan	Adopt new ways of learning; form a unique product

Get feedback from colleagues and students and rewrite to further clarify

Writing effective learning outcomes, like any good writing, is an ongoing process. All writing benefits from reviews and edits. Colleagues reviewing your outcomes should agree on what it is that you expect from your students. Students can inform you whether they interpret the outcomes in the same way that you do.

Why spend time writing specific learning outcomes? Isn't my course description good enough?

Well written learning outcomes help instructors

- Aid students in getting as much as possible from the course by focusing their learning
- Plan and revise courses by organizing the course around specific areas of achievement
- Improve assessment of student performance by aligning testing with what you want your students to actually get out of the course
- Improve organization and optimize lecture time by focusing on the most important concepts and reducing the opportunity to get off track

Well written learning outcomes help students

- Get on the same page with the instructor and peers. Students take a course for a number of different reasons: it's required, it looked interesting, it fit my schedule, it was the only one left. Specific learning outcomes make all students aware of the expectations for learning regardless of their prior experience with the subject or instructor
- Clarify what is important in this course

- Self-assess how they are doing and what they need to do to be successful in the course. When outcomes are aligned with assessments, students know how to study, practice, and apply concepts and spend less time guessing how to please the instructor
- Rise to your high expectations. The best instructors have high expectations for their students. One of the best ways to communicate your expectations is to state them up front through your outcomes.