

# Writing Learning-Centered Objectives

by Liz Banset

If there is a single key to successful teaching, it may just be the clear articulation of course goals and instructional objectives. What you want students to be able to do when they have completed your course serves as the guiding principle for designing course activities, selecting information to present, and devising appropriate assessment strategies. On a larger scale, the goals and objectives of individual courses feed into the objectives of an entire program, ultimately defining the skills and capabilities of a well-rounded graduate of that program.

Without clearly stated goals and objectives, many students believe that their primary learning task is to **guess** what their professor wants them to know. If they guess wrong, they may end up resenting the professor for being unreasonably demanding, tricky, or obscure; and the professor, who knows in his or her own mind exactly what the students were supposed to learn, may dismiss those who guessed wrong as unmotivated, lazy, or just plain dumb.

As you reach the end of the fall semester and find yourself evaluating the accomplishments of your students, this may be an excellent time to review your course goals and instructional objectives with an eye to rewriting them to make them clearer and more learning-oriented for the spring.

## Course Goals and Instructional Objectives

Course goals are fairly broad statements reflecting what students should learn. An example of a course goal is “Students will develop a basic speaking knowledge of the French language that will enable them to carry on a simple conversation with a native French speaker.” Another course goal might be “Students will become familiar with basic economic concepts and be able to apply them to current economic situations.” Course goals express the general focus of the course and help students understand the direction the course will take.

Instructional objectives are more specific statements that describe expected actions or behaviors, reflecting ways in which students’ behaviors will change and/or things students will be able to do once the course is completed. They take the guesswork out of matching the professor’s expectations with the students’ performance. You may devise several instructional objectives, depending on the number of key topics you address in your course. One instructional objective of a French language course, for example, might be “Students will be able to correctly conjugate the verb *aller* during an oral examination.” An instructional objective in a sociology course might be “Students will be able to analyze a selected number of American institutions using the basic concepts and theories of the sociological perspective, and write an explanation of the analysis.”

## Setting Goals

It is critical that objectives be sufficiently specific so you and your students know what is expected and will be able to recognize when it has been achieved. Approach goal setting from the perspective of the learners with whom you will be working. Use these questions to guide you:

- In what ways will students be “different” when they finish the course?
- ← What should students be able to do with the knowledge and skills gained in the course?
- ← What criteria will you use to evaluate student performance or describe successful performance?

Once you have formulated instructional objectives that address these questions, you’ll be able to select the subject matter you need to cover to help students meet the expectations of the course. Your objectives also will guide your choice of activities that help students practice the skills or thought processes they need to meet the objectives.

## Tips on Writing Instructional Objectives

When writing instructional objectives, use specific action verbs to describe desired outcomes (see the box below for suggested action verbs to use when writing instructional objectives.) The more specific the task, the more likely it is that the students will learn to complete it.

Instructional objectives that express student accomplishment as *knowing* or *understanding* an idea or concept can lead to confusion. For example, the objective “Students will *understand* the mechanical energy balance equation” is less specific and its accomplishment more difficult to measure than the more specific “Students will be able to *apply* the mechanical energy balance equation to *estimate* the pressure drop in a process line.”

Evaluating a student’s understanding is not easy, and even the student himself may have trouble knowing if he understands a concept or not. Some students may think they understand if they merely memorize a definition – quite different from the instructor’s intent when she expects students to understand something. In writing objectives, avoid non-specific and subjective verbs like *know*, *understand*, *appreciate*, *grasp the significance of*, *believe*, or *internalize*. Think of what you will ask the students to **DO** to demonstrate their knowledge or understanding, and make those activities the instructional objectives for a particular course topic.

Instructional objectives generally consist of three parts: 1) a statement of the expected student outcome, 2) resources or conditions available to students to demonstrate they have met the objective, and 3) the degree to which the student must demonstrate what he/she has learned.

For example: "Given a list of significant historical events and without reference material or notes [resources and conditions], students will be able to identify [intended outcome] five events [degree of mastery] that led to World War I."

***REMEMBER: Instructional objectives describe what STUDENTS will do – not the instructor.***

### **Why Bother?**

Well-formulated instructional objectives are more than just an advance warning system for your students. They can make teaching more focused and precise. Your objectives can help you:

- ← prepare your lecture and assignment schedules
- ← identify and possibly delete course material that the students can do little with but memorize and repeat
- ← facilitate construction of in-class activities, out-of-class assignments, and tests: you simply ask the students to do what your objectives say they should be able to do.

A set of objectives prepared by an experienced instructor can be invaluable to new instructors teaching a course for the first time. They can help instructors of subsequent courses in a series know what they should expect their students to have learned previously. If objectives are assembled for every course in a curriculum, a departmental review committee can easily identify both unwanted duplication and gaps in topical coverage, and the collected set makes a very impressive display for accreditation review. Well-designed instructional objectives also make the process of outcomes assessment smoother and more comprehensive.

Formulating detailed instructional objectives for a course, or even for a single topic in a course, is not nearly as easy as simply listing the course topics in a syllabus. The effort, however, is worthwhile. Many professors who re-formulate objectives for a course – even one they have taught for years – find themselves with a course that is more interesting and more challenging to the students and more enjoyable for them to teach.

## **Action Verbs for Writing Instructional Objectives**

<i>analyze</i>	<i>apply</i>	<i>build</i>	<i>calculate</i>
<i>classify</i>	<i>compare</i>	<i>conjugate</i>	<i>construct</i>
<i>contrast</i>	<i>create</i>	<i>define</i>	<i>demonstrate</i>
<i>describe</i>	<i>design</i>	<i>distinguish between</i>	
<i>draw</i>	<i>estimate</i>	<i>explain</i>	<i>identify</i>
<i>illustrate</i>	<i>list</i>	<i>model</i>	<i>predict</i>
<i>recite</i>	<i>show</i>	<i>solve</i>	<i>sort</i>
<i>summarize</i>	<i>write</i>		

### **Resources:**

Felder, R.M. and Brent, R. (1997). "Objectively Speaking," *Chemical Engineering Education*, 31(3), 178-179.

Cameron, B.J. (Ed.) (1993). *Teaching at the University of Manitoba*. Winnipeg: University Teaching Services, University of Manitoba, Winnipeg.