

# Writing Instructional Objectives

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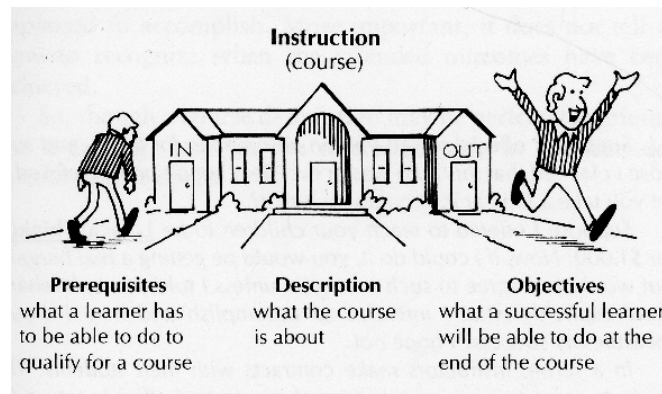
## Begin with the end in mind...

An *objective* is a description of a performance you want learners to be able to exhibit before you consider them competent. An objective describes an intended *result* of instruction, rather than the *process* of instruction itself.

(Mager, p. 5)

### Course Description, Goals and Objectives

It is important to be able to differentiate the course description from the course objectives. A course description simply tells what the course is about. You might consider the GOALS of the course to be linked to the course description; they are broad educational statements fitting the mission and description of the course. Specific measurable objectives, however, tell what the learner will be able to do upon successful completion of the course. *Begin with the end in mind...*



(Mager, p. 11)

### Why are well-written objectives important?

First, they provide some basis and guidance for the selection of instructional content and procedures. Second, they help in evaluating the success of the instruction. Third, they help the student organize his/her efforts to accomplish the intent of the instruction.

### How Does One Write a Good Objective?

Most of us are fairly proficient at writing a course description and course goals. We have a good sense of what we want the course to be about. Writing behavioral objectives, however, can take some practice. So let's begin with just two simple rules.

1. Rule #1: A good objective communicates your intent well and leaves little room for interpretation. There are words that we often use that are open to many interpretations, and there are words that we can use that leave less to the

imagination. So, when writing behavioral objectives, stick to the words that leave less room for interpretation. Consider the following:

WORDS OPEN TO MANY INTERPRETATIONS	WORDS OPEN TO FEWER INTERPRETATIONS
to know	to write
to understand	to recite
to <u>really</u> understand	to identify
to appreciate	to sort
to <u>fully</u> appreciate	to solve
to grasp the significance of	to construct
to enjoy	to build
to believe	to compare
to have faith in	to contrast

The verbs below may prove useful as you write your instructional objectives and are based on Blooms' Taxonomy of cognitive behavior: For more information on Bloom's taxonomy, visit:

<http://faculty.washington.edu/krumme/guides/bloom.html>

Knowledge		Comprehension	
Cite	Recite	Associate	Express
Count	Recognize	Classify	Extrapolate
Define	Record	Compare	Interpret
Draw	Relate	Compute	Interpolate
Identify	Repeat	Contrast	Locate
Indicate	Select	Describe	Predict
List	State	Differentiate	Report
Name	Tabulate	Discuss	Restate
Point	Tell	Distinguish	Review
Quote	Trace	Explain	Translate
Read	Write	Estimate	
Application		Analysis	
Apply	Predict	Analyze	Distinguish
Calculate	Practice	Appraise	Experiment
Complete	Relate	Contract	Infer
Demonstrate	Report	Criticize	Inspect
Dramatize	Restate	Debate	Inventory
Employ	Review	Detect	Question
Examine	Schedule	Diagram	Separate
Illustrate	Sketch	Differentiate	Summarize
Interpret	Solve		
Interpolate	Translate		
Locate	Use		
Operate	Utilize		
Order			
Synthesis		Evaluation	
Arrange	Integrate	Appraise	Measure
Assemble	Manage	Assess	Rank
Collect	Organize	Choose	Rate
Compose	Plan	Critique	Recommend
Construct	Prepare	Determine	Review
Create	Prescribe	Estimate	Score
Design	Produce	Evaluate	Select
Detect	Propose	Grade	Test
Formulate	Specify	Judge	
Generalize			

2. **RULE #2:** There are three characteristics that help communicate intent when writing an objective: Performance, Conditions, and Criterion.

**Performance:** An objective always states what a learner is expected to be able to *DO*.

**Conditions:** An objective often describes the conditions under which a student is able to *DO* or perform the task.

**Criterion:** If possible, an objective clarifies how well the student must perform the task, in order for the performance to be acceptable.

...Other ways to think about writing instructional objectives include the following:

1. Who
2. Will do
3. How much (how well)
4. Of what
5. By when

or

### **ABCDs of Writing Objectives**

- A-Audience: The who. "The student will be able to..."
- B-Behavior: What a learner is expected to be able to do or the product or result of the doing. The behavior or product should be observable.
- C-Condition: The important conditions under which the performance is to occur.
- D-Degree: The criterion of acceptable performance. How well the learner must perform in order for the performance to be considered acceptable.

### **Learner objectives can relate to Cognitive, Affective, and Psychomotor domains.**

Here are some examples of fairly well-written objectives: There is always room for improvement...

#### **Cognitive:**

By the end of the Neurology curriculum, the learner will describe in writing a cost-effective approach to the initial evaluation and management of patients with dementia (an approach that includes at least six of the eight elements listed on their handout).

By the end of their internal medicine ambulatory clerkship, each third-year medical student will have achieved cognitive proficiency in the diagnosis and management of

hypertension, diabetes, angina, chronic obstructive pulmonary disease, hyperlipidemia, alcohol and drug abuse, smoking, and asymptomatic HIV infection, as measured by acceptable scores on interim tests and the final examination.

The student will be able to name the five stages of mitosis. (Not all objectives need all components specified above. This is a nice, clearly measurable objective).

The student will be able to describe protein folding and its relation to protein function.

The student will be able to define stress; discuss typical neurobiological and behavioral responses to stress and their implications for physical and mental functioning.

### **Affective:**

By the end of the HIV curriculum, all residents will have identified their attitudes and beliefs regarding HIV patients who are drug abusers and will have discussed with their colleagues and attending physicians how these might influence their management of such patients.

Interact with others with honesty, civility, and respect.

Maintain composure when dealing with hostile or difficult patients. These skills can be assessed by direct or videotaped observation by an instructor.

### **From UCSD's Curricular Objectives**

#### **Behaviors**

*To demonstrate:*

- Compassion and sensitivity in the care of patients and respect for their privacy and dignity.
- Respect for patient autonomy.
- The ability to build therapeutic relationships with patients.
- Honesty and integrity in all interactions.
- Responsibility and trustworthiness in the execution of all duties.
- The ability to accept criticism and to understand the limitations of one's own knowledge and skills.
- Adherence to all of the principles of UCSD's Professionalism Code.
- Demonstrate a commitment to excellence and ongoing professional development.

*In addition, graduates of the UCSD School of Medicine should possess the following:*

- Dedication to the well-being and needs of patients.
- Dedication to lifelong learning and an appreciation for the role of science in medical advances.
- Dedication to continual enhancement of clinical skills.
- An understanding of the threats posed by conflicts of interest in the practice of medicine and the performance of research.
- A commitment to promote the health and well-being of the communities they serve.
- The willingness to lead when leadership is required.

### Psychomotor Skill:

By the end of the curriculum, all medical students will have demonstrated proficiency in assessing alcohol abuse by utilizing all four of the CAGE questions with one simulated and one real patient. These skills can be assessed by direct or videotaped observation by an instructor.

Demonstrate effective use of rapport-building techniques, including empathic listening, facilitation, clarification, validation, reflection, and appropriate nonverbal cues. These skills can be assessed by direct or videotaped observation by an instructor.

Assess patient's expectations, values and goals. These skills can be assessed by direct or videotaped observation by an instructor.

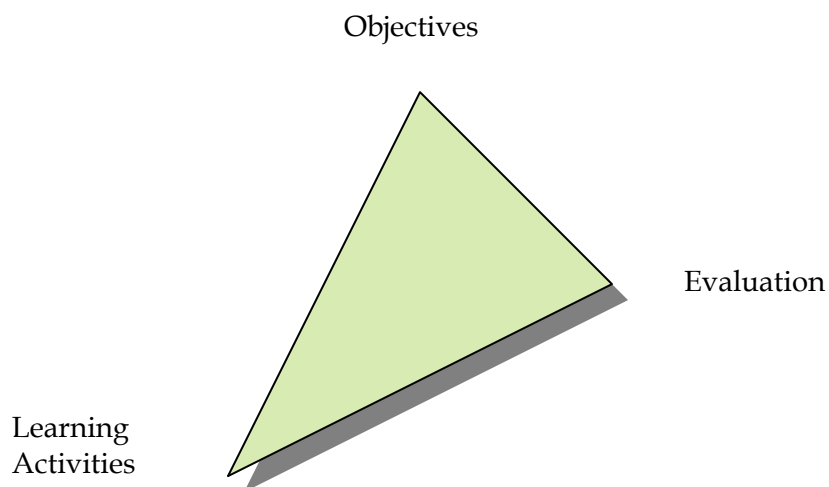
Use proper hand-washing technique prior to starting the physical exam. These skills can be assessed by direct or videotaped observation by an instructor.

Perform a basic psychiatric interview, including risk of suicide and potential of harm to self or others. These skills can be assessed by direct or videotaped observation by an instructor.

### Some objectives involve more than one domain:

The learner will be able to: orally present (skill) a new patient's case in a logical manner, chronologically developing the present illness, summarizing the pertinent positive and negative findings as well as the differential diagnosis and plans for further testing and treatment (cognitive).

### **We end with the Magic Triangle:**



If we begin with the end in mind, the objectives inform the learning activities and evaluation confirms that the expected learning did indeed occur.

## References

<http://www.uams.edu/oed/resources/objectives.asp#abcde>

<http://med.fsu.edu/education/FacultyDevelopment/objectives.asp>

<http://faculty.washington.edu/krumme/guides/bloom.html>

[http://meded.ucsd.edu/Catalog/overview/curricular\\_obj.html](http://meded.ucsd.edu/Catalog/overview/curricular_obj.html)

[registrar.mc.duke.edu/forms/GoalsObjectives.pdf](http://registrar.mc.duke.edu/forms/GoalsObjectives.pdf)

Kern, D.E., Thomas, P.A., Howard, D.M., & Bass, E.B. (1998). Curriculum Development for Medical Education: A Six-Step Approach. Johns Hopkins University Press: Baltimore, Maryland.

Mager, R. F. (1984). Preparing Instructional Objectives (2<sup>nd</sup> edition). Lake Publishing Company: Belmont, California.