

Well-worded objectives for Continuing Medical Education activities

We presuppose that you have already determined what you want the participants to accomplish in the CME activity. Now, think about how they could demonstrate that the desired change has taken place, and articulate that from the learners' perspective. Choose active verbs and describe specific observable, measurable changes in learners.

This objective: *"To educate physicians about..."*
is not written from the learner's perspective

This objective: *"The participant will understand..."*
is overly broad and not measurable

The Accreditation Council for Continuing Medical Education distinguishes three areas of desirable change: **competence**, **performance**, and **patient outcome**. One or more must be correlated to each CME offering. The areas are based, in part, on Benjamin Bloom's Taxonomy of Learning Domains. Table 1 adapts Bloom's six levels of cognitive learning to two of these areas. Use these verbs to write educational objectives that express the desired change.

Competence area		Performance area			
Knowledge (recalling facts)	Comprehension (understanding)	Application (demonstrating skills / applying concepts)	Analysis (using information to make connections)	Evaluation (judging)	Synthesis (formulating)
Cite	Associate	Apply	Analyze	Appraise	Arrange
Count	Classify	Complete	Appraise	Assess	Collect
Define	Compare	Demonstrate	Categorize	Choose	Compose
Identify	Contrast	Illustrate	Compare	Critique	Construct
Label	Describe	Interpret	Contrast	Determine	Create
List	Discuss	Manipulate	Criticize	Decide	Design
Name	Distinguish	Operate	Debate	Differentiate	Detect
Read	Estimate	Perform	Detect	Estimate	Formulate
Recall	Explain	Practice	Diagram	Evaluate	Generalize
Recite	Give examples	Predict	Differentiate	Judge	Integrate
Relate	Interpret	Relate	Distinguish	Measure	Manage
Repeat	Locate	Report	Examine	Rate	Organize
Select	Predict	Restate	Inspect	Recommend	Outline
State	Report	Review	Question	Revise	Plan
Tell	Restate	Translate	Separate	Select	Prepare
Write	Review	Use			Propose
		Utilize			Provide
					Summarize

Table 1. ACCME's knowledge and performance areas, correlated with the Cognitive Learning Domain from Bloom's Taxonomy (revised version) with appropriate verbs for each level

Avoid these verbs and phrases:

- comprehend
- know
- learn
- understand
- appreciate
- approach
- become
- familiarize
- grow
- improve
- increase
- perceive
- realize
- recognize
- remember
- become aware
- expand knowledge
- gain an understanding
- grasp significance
- speak knowledgeably
- think critically

Adapted from: "Verb Worksheet for Writing Educational Opportunities" [Word document]. Tufts University School of Medicine, Office of Continuing Education. 1 Aug 2008. Available at: <http://www.tufts.edu/med/docs/about/offices/oce/verbworksheet.doc>. Accessed 14 October 2009.

Please realize, however, that it is the meaning of the objectives that is important. Simply substituting a word from Table 1 for another which should be avoided misses the point. Educational objectives should always describe what you want participants to learn and how they can demonstrate it.

Examples of acceptably worded objectives for CME presentations:

To describe desired change in the Competence area:

“At the conclusion of this educational presentation, the participant will be able to:

- List major and minor risk factors predisposing patients to... “
- List risk factors for disease severity and death (*associated with a given disease*)”
- Identify clinical, laboratory and imaging studies that indicate severity of disease.”
- Identify patient characteristics and co-morbid conditions that predict outcome in...
- Describe evidence-based therapies for the treatment of...
- Describe the use of biomarkers in the diagnosis of...
- Describe factors that may require early aggressive interventions in ...
- Describe the variable clinical presentations of...
- Explain indications for hospitalization of patients with...
- Explain mechanisms of action and risks associated with (a class of drug)
- Explain patient characteristics that portend poor prognosis in...

Adapted from: “Core Competencies in Hospital Medicine” J Hosp Med 2006 Feb. 1(Suppl. 1):2-95. Available at: <http://www3.interscience.wiley.com/journal/112396185/issue> Accessed 8 June 2009.

To describe desired change in the Performance area:

“At the conclusion of this educational presentation, the participant will be able to:

- Distinguish...from other...
- Distinguish the causes of...

“As a result of this educational series the participant will be able to:

- Accurately apply staging criteria according to AJCC Cancer Staging Manual, 7th ed.
- Formulate appropriate cancer staging workup and treatment plan according to stage.

Measures (evaluations) based on institutional statistics can initiate objectives such as:

- “As a result of this educational presentation, there will be a decrease in the number of inappropriate prescriptions written for (drug) for (condition or disease)”

To describe desired change in the Patient Outcome area:

In the patient outcome area, objectives are often associated with quality indicators, such as National Patient Safety Goals, Joint Commission/CMS indicators, Department of Public Health requirements; or with a hospital’s internal quality goals. So, wording may reflect the direction of desired movement.

- Eliminate
- Increase level of ...
- Decrease...
- Reduce incidence of ...