Writing Learning Objectives for CME Activities

Establishing educational objectives is among the most important steps in planning a CME activity. Visualize learning objectives as "stepping stones" that enable you and your faculty to take the learner from the identified current practice to the desired outcomes. Objectives help physicians determine if a CME activity will be valuable to attend. The clearer the objective, the more certain you'll be to attract your target audience.

When developing a new educational activity such as a lecture:
- Consider what cognitive level of learning you want your learners to attain - and what can reasonably be reached due to the limits (e.g. time, size of audience) of the presentation.
- Think about the concepts an audience already brings to the program. A lecture-based, short activity may only allow for accomplishment of a cognitive level of *Knowledge* or *Comprehension*.
- Adding some inventiveness may get you to higher levels of learning. For example, role play will allow learners to apply and practice what they've learned. Critiquing a video in small groups may allow learners to analyze, synthesize, and even evaluate.

After you have determined what level of learning your learners can reasonably attain, define an educational objective using one of the "action verbs" on the following page**. A learning objective describes what you want your audience to learn and how they will demonstrate what they have learned.** Selecting the appropriate action verb to describe the desired learning is often the most difficult part of objective writing.

The objective should define the behavior you wish the participant to demonstrate at the conclusion of the teaching session. For example, you can observe whether the participant can "explain" or "list" information. Words like "know" or "understand" or "appreciate" cannot be tested - except through your observation of whether they can "explain" or "list" the information. **Passive words like "know" or "understand" or "appreciate" or "become familiar with" are** not **appropriate verbs to use in developing an educational learning objective.**

A learning objective is not a listing of what the teacher will do or provide. In CME, objectives are written in terms of what the *physician* will do in the practice setting with the information being taught.

An excellent format to introduce the statement of educational objectives is:
    "At the conclusion of this activity/session/course, participants should be able to…."
Then state what the participants should be able to do. Follow this simple format while keeping the list of verbs by your side to ease the task of writing a good set of objectives.

Learning objectives are supported by/developed from the content of the educational activity. Typical activities list approximately 1-2 objectives per practice gap. Members of the planning committee should work with the presenter(s) to develop the learning objectives. All CME activities are expected to change physician competence or performance and/or improve patient outcomes, as opposed merely to increasing knowledge. Therefore, your objectives should be focused on higher level outcomes.

BE CREATIVE! Your learners will appreciate it.

Use the table below to develop learning objectives based on your desired educational outcomes. The higher the level, the more rigorous the cognitive demand (level of thinking required), so we encourage high level objectives. Design strategies to achieve levels of Application or higher, using no more than one Knowledge or Comprehension learning verb per one hour of instruction.

Cognitive Level	Action Verbs					Teaching Strategy Examples	Assessment Strategies
Knowledge Learners will "know" something new	Arrange Define Describe Duplicate	Identify Label List Match	Memorize Name Order Outline	Recognize Relate Recall Repeat	Reproduce Select State	Lecture Video Audio	Written exams Oral exams Pre/Post
Comprehension Learner will be able to "convey" their new knowledge	Classify Convert Defend Describe Discuss	Distinguish Estimate Explain Express Extend	Generalized Give example(s) Identify Indicate Infer	Locate Paraphrase Predict Recognize Rewrite	Review Select Summarize Translate	Question Discussion Learner presentations Writing	Written exams Oral exams Pre/Post Learner presentations Writing critique
Application Learners will be able to "apply" learned information in new situations	Apply Change Choose Compute Demonstrate	Discover Dramatize Employ Illustrate Interpret	Manipulate Modify Operate Practice Predict	Prepare Produce Relate Schedule Show	Sketch Solve Use Write	Learner presentations Problems Exercises/role play Demonstration	Presentation critique Assessment of: Problems Exercises Simulation
Analysis Learners will be able to "analyze and interpret" new information	Analyze Appraise Breakdown Calculate Categorize Compare	Contrast Criticize Diagram Differentiate Discriminate	Distinguish Examine Experiment Identify Illustrate	Infer Model Outline Point out Question	Relate Select Separate Subdivide Test	Problems Exercises Case Studies Critical incident analysis Discussion	Assessment of: Problems Exercises Case Studies Critical incident analysis Root Cause Analysis
Synthesis Learners will be able to "create something new" from knowledge and skills	Arrange Assemble Categorize Collect Combine Comply	Compose Construct Create Design Develop Devise	Explain Formulate Generate Plan Prepare Rearrange	Reconstruct Relate Reorganize Revise Rewrite	Set up Summarize Synthesize Tell Write	Problems Exercises Case Studies Group projects	Assessment of: Problems Exercises Case Studies Group projects
Evaluation Learners will be able to "evaluate" situations or concepts based on what they've learned	Appraise Argue Assess Attach Choose	Compare Conclude Contrast Defend Describe	Discriminate Estimate Evaluate Explain Judge	Justify Interpret Relate Predict Rate	Select Summarize Support Value	Case Studies Projects Exercises Critiques Simulations Appraisals	Assessment of: Case Studies Projects Exercises Critiques Simulations Appraisals