

CME HIGHLIGHTS

VOLUME 1, ISSUE 2

SUMMER 2010

In this issue:

Instructional Design: First Steps	2
Snapshot of CME	2
SMART Objectives	3
SMARTer Objectives	3
Types of Objectives	3
Action Verbs	3
Example Objectives	4
Sources Used	4



Boonshoft
School of Medicine
WRIGHT STATE UNIVERSITY

How to contact us:

CME Program
Wright State University
Boonshoft School of Medicine
3640 Col. Glenn Hwy.
Dayton, Ohio 45435

Tel: 937.775.3435

Fax: 937.775.3256

med.wright.edu/fca/cme

Snapshot of Wright State University Boonshoft School of Medicine CME

Directly Sponsored

Live Events: 9
Enduring Materials: 14
Journal: 2
RSS: 8 series
Total over 186 individual events

Jointly Sponsored

Live Events: 13
Enduring Materials: 1
RSS: 4 series
Total over 26 individual events

Total Hours provided: 381.75 hours of
AMA PRA Category 1 credit™

Figures based on CME data collected 2009

Message from the Director

When I started my career at Wright State University Boonshoft School of Medicine almost 32 years ago, my major assignment was to prepare faculty for our new medical school to be outstanding teachers for our charter class of 32 medical students. I was fortunate to have a senior colleague, Dr. Anthony Parisi, who gave me a book that has proved invaluable in keeping any educational experience on target: *Preparing Instructional Objectives* by Robert F. Mager (Lear Seigler, Inc./Fearon, 1962). It retailed for \$2.25, a huge bargain considering how many times I have used and shared it with colleagues. It is still on my bookshelf, and I consider it one of my most treasured texts, a paperback of 53 pages—not counting the pre- and post-test!

I have always considered that writing objectives should be the first and most crucial step in designing an educational activity. Too often, faculty will design a



Dr. Albert F. Painter, Jr., Psy.D.
CME Director
Associate Professor of Family Medicine and Psychiatry
Assistant Dean of Faculty Affairs

module and then write the objectives. This mistake (in my opinion) causes lack of focus and incomplete learner outcomes. The rigorous creation of objectives holds faculty to a higher critical accountability for what the learner will have absorbed after the instructional event.

In his preface, Mager recounts the fable of a “happy-go-lucky” seahorse on an ill-planned journey, who ends up being dinner for a shark. The moral of this tale is that if you are not sure where you’re going, you are liable to end up somewhere else—and not even know it! Objectives help us in very critical ways to plot our course and avoid being prey for sharks and other predators of educational disaster.

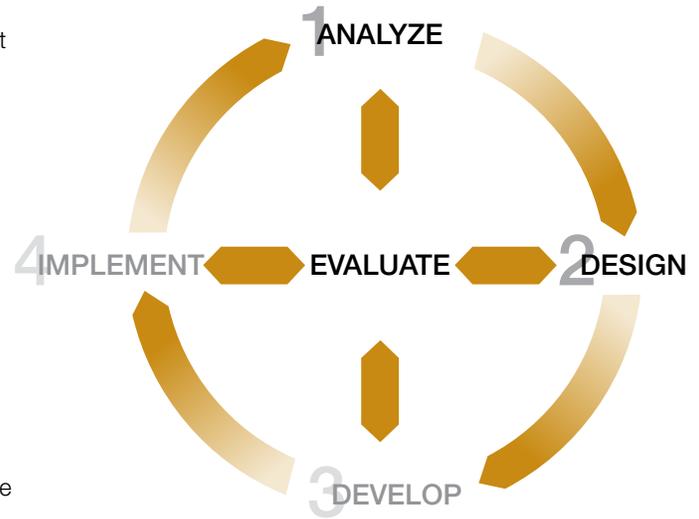
When planning any CME activity, the planning committee must start by using instructional design to correctly develop the activity. This article focuses on the first two steps.

Step One: Analyze

The planning committee probably has a good idea of the direction for the activity before sitting at the planning table, but not specifics. Committee members should use the gap analysis to discover the nature of the knowledge, competence, or practice gap. Using information gathered in that analysis, the planning committee knows what the problem is, who has the problem, and what resources are available to close the learning gap. See *CME Highlights* Vol. 1(1) for more information on gap analysis, including finding learning barriers.

Step Two: Design

The planning committee first creates the broad statements outlining the goal of the activity. These statements can be vague and encompassing to describe the purpose of the activity. Goals can be immeasurable and use words like “appreciates,” “understands,” “presents,” or “learns.” The planning committee also develops objectives, the steps that the learner must take to get to the goal. These steps help the trainer to focus on desired outcomes. Learner objectives are also called *behavioral objectives*. Developed correctly, these objectives will clearly and concisely communicate what an attendee is expected to know and/or do at the conclusion of an activity. Well-written objectives will also lend themselves to assessment. In essence, the planning committee is starting with the end in mind.



Objectives should...

- Be stepping stones to achieve the goal
- Be consistent with the **mission of CME**
- Be developed per topic and used in the brochure
- Tell the learner what he/she is expected to know or be able to do



**“The goal is where we want to be.
The objectives are the steps needed to get there.”**

Learner objectives should use the “SMART” method. They should be Specific, Measurable, Action-oriented, Relevant, and Tangible. Learner objectives should use action verbs and include specific conditions that describe to what degree the learner should be able to demonstrate mastery. Specifics include how or where the learner will perform the task, a behavior verb, and how well the learner performs the behavior. Developing objectives that are measurable enables the committee to determine whether or not the activity was successful in achieving the goal.

At an Alliance for CME conference in June 2009, Marcia Jackson, Ph.D., president CME By Design, suggested a trick for determining if an objective is measurable: Say “Hey, Mom! Watch me!” As most parents can attest, children love to show off to their parents, especially at a pool. Suddenly a little voice yells, “Hey Mom! Watch me!” as the child jumps and twists into the pool. The mother claps and smiles as the child surfaces. The mother responds with an encouraging “Great job, honey!” The moral of the story is that if the objective cannot be “watched” or observed, it is not truly measurable.

Action Verbs

Vague terms like “to understand,” “to know,” “to appreciate,” “to have an awareness of,” “to grasp the significance of,” or “to learn about” are open to interpretation and are not accessible to quantification. They should be replaced with action verbs.

Apply	Discuss	Recall
Arrange	Distinguish	Relate
Assess	Employ	Recognize
Categorize	Evaluate	Report
Classify	Explain	Review
Construct	Formulate	Predict
Contrast	Illustrate	Prepare
Create	Integrate	Sort
Defend	Interpret	Solve problems
Describe	List	Translate
Diagram	Name	Update
Discriminate	Organize	

SMARTer Objectives

Creating SMARTer objectives could include specifying:

Who is involved

The people whose behaviors, knowledge, and/or skills are to be changed as a result of the program.

What are the desired outcomes

The intended behavior, knowledge, and/or skill changes that should result from the program or activities.

How is progress measured

The tool or device (surveys, tests, data from other sources) that will be used to measure the expected changes.

What Proficiency level will learners attain

Identify the criteria for success.

When will the outcome occur

Identify the time frame for success

Types of Objectives

Attitude development objectives mainly deal with attitudes, values, or feelings. Use them during activities designed to change learners’ attitudes or increase awareness of or sensitivity to certain issues. They can be evaluated through discussion.

Related Action Verbs: adjust, analyze, assess, choose, criticize, decide, evaluate, pick, select

Skill development objectives are easy to identify and assess, because they are written to focus on the learners’ ability to perform a task. They can be evaluated by observation.

Related Action Verbs: assemble, compute, construct, copy, count, demonstrate, design, develop, draw, measure, operate, prepare, process, prove, record, repair, solve, speak, transcribe, type, write

Knowledge development objectives deal with content or cognitive learning and relate to the ability to demonstrate knowledge, to comprehend information, and to analyze concepts. They can be evaluated by written or oral tests.

Related Action Verbs: cite, compare, contrast, define, describe, detect, differentiate, distinguish, enumerate, explain, identify, list, name, quote, recite, recognize, relate, repeat, reproduce.

Phrases to Avoid

- To understand...
- To know...
- To have an awareness of...
- To appreciate...
- To learn about...

By December 2010, tobacco use will decrease to 10% of patients seen as reported on a prevalence survey.

The learner will be able to orally present 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.

The learner will be able to prepare legible, comprehensive, and focused new patient workups that include the following features:

- Present illness organized chronologically, without repetition, omission, or extraneous information
- A comprehensive physical examination with detail pertinent to the patient's problem
- A succinct and, where appropriate, unified list of all problems identified in the history and physical examination
- A differential diagnosis for each problem (appropriate to level of training)
- A diagnosis/treatment plan for each problem (appropriate to level of training)

The learner will be able to take stool specimens infected with one of 10 possible ova and parasites and correctly identify it.

After viewing the webcast, the learner will be able to compare two new methods of diagnosing myopia,

At the end of the symposium, the learner will be able to identify the three basic treatments for newly diagnosed diabetes.

Sources Used

Developing CME Objectives. (2007, October 22). Retrieved May 2010, from Wright State University Boonshoft School of Medicine: <http://www.med.wright.edu/fca/cme/objectives.html>

Information About Behavioral Objectives and How to Write Them. (n.d.). Retrieved May 2010, from Florida State University: <http://med.fsu.edu/education/facultydevelopment/objectives.asp>

Landau, V. (2001). Topic 4: Developing Goals and Objectives. Retrieved May 2010, from Round World Media: <http://www.roundworldmedia.com/cvc/module4/notes4.html>

Lawson, K. (2006). The Trainer's Handbook. San Francisco: Pfeiffer.

Nuriddin, H. (2010, May 21). Writing Objectives Before Course Development Begins. Retrieved May 2010, from Suite 101.com: <http://designing-training-tools.suite101.com/article.cfm/writing-learning-objectives-before-course-development-begins>

Unknown (2003). Teaching Support Services. Retrieved May 2010, from University of Guelph: <http://www.tss.uoguelph.ca/resources/idres/learningobjectives1.pdf>

Unknown. (n.d.). How to Write Measurable Goals and Objectives. Retrieved May 2010, from North Carolina Medical Society: http://www.ncmedsoc.org/pages/ncms_accreditation/Objectives.doc

Unknown. (n.d.). How To Write Objectives Outcomes. Retrieved May 2010, from University of Connecticut: <http://assessment.uconn.edu/docs/HowToWriteObjectivesOutcomes.pdf>

Writing Measurable Objectives. (2010). Retrieved May 2010, from Association of College & Research Libraries: <http://www.ala.org/ala/mgrps/divs/acrl/about/sections/is/webarchive/smartobjectives/writingmeasurable.cfm>

Objectives Cheat Sheet

Who:

The learner will be able....

The participants will be able....

The physician will be able...

How:

...to name

...to identify

...to explain

What:

...the dangers of using hexachlorophene in skin prophylaxis of the newborn

...CPR

Performance Standards:

...with no mistakes

... in 15 minutes

... with 98% accuracy

Condition:

... given a problem of the following type

...without the use of reference materials