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Creating Learning Objectives and Evaluations
Guidelines and Ideas for Educators

At the Office of Continuing Medical Education, we're here to help you create educational courses that make a long-lasting impact. Here are some ideas for creating meaningful learning objectives, evaluation questions and longitudinal evaluations.

Learning Objectives or Performance Objectives

Objectives should be performance-based, not solely knowledge-based, and the educational method should fit the objectives (don't make the method the objective).

Below are examples of how to begin knowledge-based and performance or outcome-based objectives. For continuing medical education, BOTH types of objectives are to be included when developing your course.

By the end of this course, the learner will be able to:

Knowledge-Based Objectives
- Cite the three leading causes of…
- List the four criteria for diagnosing…
- Describe the epidemiology of…

Competency, Performance or Outcomes-Based Objectives
- Develop a plan for screening for…
- Improve the screening rate for Hepatitis B among pregnant women by X number.
- Implement the 2017 ACC/AHA guidelines on hypertension.

The Purpose of Evaluations

Evaluations are a critical piece of continuing medical education in that they are used to determine how the learner will apply their new knowledge, skills or abilities to change their current practice, as well as to provide you, the educator, feedback about the course. Educators are often so excited to hear what the learners thought about the course that they forget the most important element of quality education – that the learner can apply their new knowledge, skills and abilities into practice.

To make it simple, think of evaluations in two parts:
1) An assessment of the learner, the learning taking place and the resulting changes to practice and health outcomes.
2) An assessment of the educator(s) and/or the course itself.

Evaluation Methods

There are several different evaluation methods that can be used to assess the learners and their learning, as well as the educator(s) and the overall course. Examples of the most common methods and when they are most frequently used include:

- *Checklist, rating scale and rubric:* Used more commonly for assessment of learning and performance during practice and assessment of skills. They state specific criteria and allow the instructor to make judgements regarding learners' skills and knowledge.
- *Pre- and post-tests:* These methods provide concrete data regarding the knowledge and/or skills of learners before and after instruction takes place.
- *Direct observation and feedback:* Frequently used in combination with checklists, rating scales, and rubrics to assess knowledge and/or skills of learners.
- *Surveys:* To collect information regarding reactions, learning and behavioral changes of learners after completing an educational course.
- *Interviews:* Provide insight on the qualitative experience of learners after an educational activity or program. The role of the interviewer is to offer a structured or semi-structured framework that guides learners to provide an accurate and thorough point of view about their learning experience.
- *Video assessments:* Used to document all types of learning activities. Examples of video assessments include a) documenting interviews and b) recording learners' performance to provide evidence of the skills acquired during a learning activity or program.

Evaluation Types

Evaluations can be distributed to learners individually or collectively as a group, dependent on what the educator is trying to assess. For example, when trying to gauge baseline knowledge of a group of learners, polling the group using an electronic type of pre-test could be advantageous. This allows the educator to also perform a post-test to assess if the objectives of an educational course were met.

When to Administer Evaluations

Evaluations should be given/distributed dependent on the learning objectives trying to be achieved. For example, if one of the objectives is to test the learner's ability to perform a specific procedure, then administering an evaluation through direct

observation and feedback, as well as a post-test may be the most appropriate.
In another case, immediately after the learning, using a checklist, rating scale, or rubric to document the learner's performance provides a quantitative perspective of the learner's performance.

Creating an Evaluation

One must address two parts when creating an evaluation:
1) An assessment of the learner, the learning taking place and the resulting changes to practice and health outcomes.
2) An assessment of the educator(s) and/or the course itself.

When creating an evaluation, begin by asking yourself these questions:

1. **Why are you doing an evaluation?**
   What is your purpose and what do you hope to accomplish?

2. **Who will use the information? How will they use it?**
   How will the information from the evaluation be used?

3. **What specific questions will you ask?**
   Begin to list the specific questions you would like answered. Remember to break your questions into the two evaluation parts; to assess the learning that is occurring and/or has taken place, and the resulting changes to practice and patient outcomes, as well as to obtain feedback about the educators and/or course. Examples are outlined below. Also, differentiate between what would be nice to know and what you need to know.

   Examples of common outcomes include:
   - Overall benefits that participants attribute to the session
   - Commitment to action
   - Intended changes in practices or behaviors
   - Perceived changes in motivation, confidence or abilities
   - Perceived changes in knowledge and skills
   - Perceived changes in attitudes, beliefs and opinions
   - Perceptions of before and after differences

   Consider not only *new* knowledge gains, but also other knowledge gains and kinds of results your program may be fostering, such as:
   - Expanded understanding

- Increased insights into what was already known
- Clarified things that had been learned
- Refocused attention on a topic
- Helped integrate information that had been heard
- Helped in understanding one's own beliefs
- Challenged traditional thinking
- Stimulated interest to learn more
- Stimulated new thinking
- Provided ammunition to use in an argument
- Triggered new ideas
- Helped in applying information
- Encouraged action
- Helped in self-understanding

Evaluation Question Examples: Overall Benefits

It is useful to include at least a question about the general benefit or value of the course.

1. **What percentage of the content of this course did you already know prior to taking the course?**
   ☐ 0-25%   ☐ 26-50%   ☐ 51-75%   ☐ 76-100%

2. **Which of the following benefits do you attribute to this workshop?**
   (Circle yes or no for each item.)

   [List benefits]

   a. _____

   b. _____

   c. _____

Evaluation Question Examples: Commitment to Action

People who make a public commitment to action are more likely to follow through than those who do not make such a commitment. One technique is to ask participants to express what they intend to do based on the learning experience before they leave the session. They may simply list one thing they intend to do on a paper, notecard or digital device. (See samples below.)

1. **Do you intend to try any of the techniques discussed today?**
   ☐ Yes   ☐ No   If yes, what do you plan to try? _____

2. **Do you intend to do anything different as a result of today's course?**
    ☐ Yes ☐ No   Describe: _____

3. **What materials or information do you intend to use?** *(List materials and information.)*
    _____

4. **Which of the following will you consider doing as a result of the course?**
    (List actions)

    a. _____

    b. _____

    c. _____

Evaluation Question Examples: Change in Practice

Changes in behavior and practice only become evident once the learner returns to his/her work. You can only ask about changes in behavior that participants plan to make. List as many practice areas as needed.

1. **Which of the following practice areas will you change as a result of this course?**
    ☐ Practice Area 1: _____
    ☐ Practice Area 2: _____
    ☐ Practice Area 3: _____

2. **What is one thing you will incorporate into practice as a result of this conference?**

    _____

3. **Which of the following practices will you apply that you did not use before this training?** *(Check one answer for each.)*

    [List practices]

4. **As you think about the next three months, circle the number which best describes the degree to which you will engage in the following practices.**

    [List practices]

    1= Never   2=Seldom   3=About Half the Time   4=Often   5=Always

Longitudinal Evaluation Question Examples: Change in Practice

For Larger Groups

1. **After attending the UC Davis Health _____ course on XX/XX/XX, which of the following areas did you incorporate into practice?**
   ☐ Practice Area 1: _____
   ☐ Practice Area 2: _____
   ☐ Practice Area 3: _____

2. **Which of the following practices did you apply that you did not use before the training?** *(Check one answer for each.)*

   [List practices]

3. **Circle the number which best describes the degree to which you now engage in the following practices.**

   [List practices]

   1=Never   2=Seldom   3=About Half the Time   4=Often   5=Always

Example of a longitudinal evaluation question customized to the learner:

1. **After attending the UC Davis Health _____ course on XX/XX/XX, you indicated that you planned to incorporate _____ into practice. Did you make the change?**

   ☐ Yes   ☐ No

   If yes, what has been the result of the change in practice?

   _____

   If not, what prevented you from making the change?

   a. Takes too much time
   b. Unable to gain consensus for change
   c. No opportunity to try yet
   d. Requires policy change
   e. Other (please list) _____

<u>Evaluation Question Examples:</u>
<u>Perceived Changes in Motivation, Confidence and Abilities</u>

1. **To what extent do you feel more able to *[insert item]* as a result of this course?**
   (Repeat this question as needed with various items.)

☐ Not at All ☐ Very Little ☐ Somewhat ☐ Quite a Bit ☐ A Great Deal

2. **As a result of this course, I feel that I can:**

   _____

   _____

Evaluation Question Examples: Perceived Changes in Knowledge and Skills

1. **As a result of participating in this course:**

   SA = Strongly agree, A= Agree, N = Neutral, D = Disagree, SD = Strongly disagree

	SA	A	N	D	SD
a. I learned new skills that will help me in …	O	O	O	O	O
b. I increased my knowledge about …	O	O	O	O	O
c. I am more aware of …	O	O	O	O	O
d. I am stimulated to learn more about …	O	O	O	O	O

Evaluation Question Examples: Perceived Changes in Attitudes, Beliefs and Opinions

1. **As a result of this course, please indicate your opinion on the following statements:**

   [Insert statements]

   e.g. Addressing _____ in the workplace will have a positive impact on health outcomes.

   ☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

   e.g. Incorporating _____ into practice will result in improved _____.

   ☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

   e.g. Using hybrid teaching methods strengthens a learner's _____.

   ☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree