



**SHENANDOAH**<sup>™</sup>  
U N I V E R S I T Y

Bernard J. Dunn School of Pharmacy

## Office of Continuing Pharmacy Education

### CPE PRESENTER GUIDANCE

In order to adhere to the Accreditation Council for Pharmacy Education (ACPE) Accreditation Standards for Continuing Pharmacy Education (CPE), Shenandoah University Bernard J. Dunn School of Pharmacy (SUBJSDOP) Office of Continuing Pharmacy Education encourages the use of supportive and supplemental instructional materials for use in the development of continuing pharmacy education activities.

The following guidelines will assist you in developing a meaningful and instructional CPE presentation that meets ACPE Standards and is consistent with the School's goal of providing high quality CPE activities for pharmacists. SUBJSDOP will work with you on each of these guidelines to ensure requirements are adhered to and offer guidance throughout the planning of the activity.

#### 1. Educational Needs Assessment

The target audience, including their make-up and practice, will be identified by SUBJSDOP. Needs assessments for the target audience should be completed before planning specific CPE activities and should guide content development and delivery. The presenter is expected to assist SUBJSDOP in helping to determine educational needs of the pharmacists when appropriate, and to aid in identifying specific gaps in knowledge between what pharmacists do and what is needed and desired in practice.

#### 2. Continuing Pharmacy Education Activity Types

ACPE has categorized CPE activities into three different groups: Knowledge-, Application-, and Practice-based. Each CPE activity must be structured to meet the knowledge-, application- and/or practice-based educational needs of the pharmacists. At this time, SUBJSDOP does not offer Practice-based CPE activities.

#### GUIDANCE:

- Knowledge-based: Primarily designed for pharmacists to acquire factual knowledge. The learning assessment may consist of questions or recall of facts. The information must be based on evidence as accepted in the literature by the healthcare professions. The minimum amount of credit for knowledge-based activities is 15 minutes or 0.25 contact hours.
- Application-based: Primarily designed for pharmacists to apply the information learned in the time frame allotted. The learning assessment may include case studies or application of principles. The information must be based on evidence as accepted in the literature by the healthcare professions. The minimum amount of credit for knowledge-based activities is 60 minutes or 1.0 contact hour.

#### 3. Writing CPE Activity Learning Objectives

A behavioral objective states what the participant will be able to do on completion of a continuing pharmacy education (CPE) activity. A behavioral objective identifies the terminal behavior or outcome of the offering. The presenter is expected to work with SUBJSDOP to create activity objectives that are appropriate, specific and measurable by the target audience.

Objectives are critical to CPE activity development because they: (1) reflect input from learners relative to educational needs; (2) determine the selection of content and teaching methods; and (3) provide a guide to the evaluation phase.

A learning objective consists of 2 parts:

- Verb: describes a measurable behavior and is chosen by activity type (knowledge- or application-based)
- Stem: outcome-based result

**GUIDANCE:**

Learning Objectives...

- Use verbs which describe an action that can be observed
- Use verbs that are specific and measurable within the teaching time frame
- Have been developed to specifically address the identified educational need
- Describe the learner outcome, not the presenter’s process or approach
- Are appropriate for the designated teaching method(s)
- Are addressed by an active learning activity and assessed by a learning assessment

**VERBS TO USE:**

| APPLICATION |            |               |              | KNOWLEDGE      |            |
|-------------|------------|---------------|--------------|----------------|------------|
| Evaluation: | Synthesis: | Analysis:     | Application: | Comprehension: | Knowledge: |
| Appraise    | Arrange    | Analyze       | Apply        | Classify       | Arrange    |
| Argue       | Assemble   | Appraise      | Choose       | Describe       | Define     |
| Assess      | Collect    | Calculate     | Demonstrate  | Discuss        | Duplicate  |
| Attach      | Compose    | Categorize    | Dramatize    | Explain        | Label      |
| Choose      | Construct  | Compare       | Employ       | Express        | List       |
| Compare     | Create     | Contrast      | Illustrate   | Identify       | Memorize   |
| Defend      | Design     | Criticize     | Interpret    | Indicate       | Name       |
| Estimate    | Develop    | Differentiate | Operate      | Locate         | Order      |
| Evaluate    | Formulate  | Discriminate  | Practice     | Outline        | Recognize  |
| Judge       | Manage     | Distinguish   | Schedule     | Recognize      | Relate     |
| Predict     | Organize   | Examine       | Sketch       | Report         | Recall     |
| Rate        | Plan       | Experiment    | Solve        | Restate        | Repeat     |
| Select      | Prepare    | Investigate   | Use          | Review         | Reproduce  |
| Support     | Propose    | Question      | Write        | Select         | State      |
| Value       | Set up     | Research      |              | Translate      |            |
|             | Write      | Test          |              |                |            |

**VERBS TO AVOID:**

Avoid using words that describe mental responses that cannot be measured, or terms that are broad, vague, difficult to measure, and permit a variety of interpretation:

| EXAMPLES OF VERBS TO AVOID |                             |                 |
|----------------------------|-----------------------------|-----------------|
| Appreciate                 | Develop conceptual thinking | Learn           |
| Be acquainted with         | Enjoy                       | Perceive        |
| Be aware of                | Explore                     | Remember        |
| Be familiar with           | Gain a working knowledge of | Realize         |
| Believe                    | Grasp the significance of   | Sympathize with |
| Behave                     | Have knowledge of           | Think           |
| Comprehend                 | Increase interest in        | Understand      |
| Develop an appreciation of | Know                        |                 |

#### 4. Appropriate Active Learning Techniques

The presenter should plan to include active learning participation and learning assessments in each CPE activity to allow the pharmacist to assess achievement of the educational content. Actively engaging pharmacists in the learning process versus passively absorbing lectures allows for immediate feedback regarding comprehension and is generally more motivating for the participant.

GUIDANCE:

The following charts serve as an example for active learning strategies for use with ACPE CPE activity types:

| KNOWLEDGE-BASED ACTIVITY   |  |
|--|--|
| Knowledge Verbs  | Active Learning Techniques   |
| Define<br>Repeat<br>List<br>Record   | Interactive lecture<br>Visuals<br>Examples<br>Illustrations<br>Analogies   |
| Comprehension Verbs  | Active Learning Techniques   |
| Discuss<br>Describe<br>Explain<br>Recognize<br>Identify<br>Translate<br>Restate<br>Express | Test<br>Review<br>Writing exercises<br>Presentations<br>Matching questions/answers<br>Questions in educational content<br>Discussion<br>Report |

| APPLICATION-BASED ACTIVITY  |  |
|---|--|
| Application Verbs   | Active Learning Techniques   |
| Interpret<br>Apply<br>Employ<br>Use<br>Demonstrate<br>Illustrate<br>Practice                                  | Role play<br>Simulations<br>Practice exercises<br>Demonstrations<br>Projects     |
| Analysis Verbs  | Active Learning Techniques   |
| Distinguish<br>Analyze<br>Differentiate<br>Calculate<br>Compare<br>Contrast<br>Criticize<br>Debate<br>Diagram | Case studies<br>Problems<br>Discussion<br>Pro/con grids<br>Application exercises |

| Synthesis Verbs  | Active Learning Techniques  |
|--|---|
| Plan<br>Construct<br>Compose<br>Create<br>Design<br>Set up<br>Propose<br>Organize<br>Formulate<br>Prepare<br>Arrange | Problems<br>Case studies<br>Develop plans<br>Simulations<br>Projects      |
| Evaluation Verbs   | Active Learning Techniques  |
| Judge<br>Evaluate<br>Rate<br>Compare<br>Revise<br>Measure<br>Score<br>Select<br>Choose<br>Assess<br>Estimate         | Case studies<br>Problem exercises<br>Projects<br>Critiques<br>Simulations |

ACPE Guide to Active Learning Activities: Adapted from Phillips, L. *The Continuing Education Guide: The CEU and other Professional Development Criteria*. 1994.

**GUIDANCE:**

- Each learning objective needs to be addressed by an active learning method and assessment
- Active learning needs to be moderated by the presenter
- Active learning methods should be appropriate for the format and time frame of the activity
- Active learning strategies should enhance the participant’s understanding of the content
- Feedback must be provided to the participants, including discussion of correct answers and the rationale

## 5. Developing Effective Learning Assessments

Listed below is a small sample of different learning assessment techniques categorized by Bloom's Taxonomy labeled according to knowledge, skills, or attitudes attributes. Any of these techniques may be used in live or home-study activities, small or large audiences. Remember that there are two components to learning assessment: (1) learning exercise and (2) feedback to the participant.

### KNOWLEDGE: Assessing recall and understanding

*Memory Matrix*: a 2-dimensional table, divided into rows and columns, to organize information and illustrate relationships. Row and column headings are given, but cells within are left empty. This learning strategy assesses the ability to recall content and organize information. Example:

Sample Memory Matrix for Differentiating Type 1 and 2 Diabetes

| Characteristic | Type 1 | Type 2 |
|----------------|--------|--------|
| Age of onset   |        |        |
| Weight         |        |        |
| Use of insulin |        |        |

*The Minute Paper*: a quick and simple way to collect written feedback on participant learning. After a certain part of a presentation, the presenter asks:

- "What was the most important thing you learned during this presentation?"
- "What important question remains unanswered?"

The participants write the answers on a piece of paper and the responses may be collected so the presenter can identify the extent of the participants' learning and address the most common questions.

*The Muddiest Point*: a strategy to find what participants find most confusing about a particular lesson or topic. Presenters can use it as feedback and to guide their teaching. This strategy may be used at the beginning, middle or end of the presentation. Example: After presenting treatment options for a disease state, the presenter asks:

- "Now that you know the different treatment options for "X". What question would you still like clarified regarding the treatment options?"

*Background Knowledge Probe*: a short, simple survey for use at the beginning of a presentation. Example: pre-test.

### SKILL: Assessing skill in analysis and critical thinking

*Defining a Features Matrix*: a table that categorizes concepts according to the presence (+) or absence (-) of important defining features. This activity allows participants to quickly distinguish similar concepts. Example:

| Symptoms/Signs      | Systolic CHF | Diastolic CHF |
|---------------------|--------------|---------------|
| Shortness of breath |              |               |
| Cough               |              |               |
| Peripheral edema    |              |               |
| Dyspnea on exertion |              |               |
| Orthopnea           |              |               |

*Pro and Con Grid*: an analysis of the pros and cons, costs and benefits, or advantages and disadvantages of a topic. This learning strategy forces participants to search for two sides to the issue in question. Example:

|           |     |     |
|-----------|-----|-----|
| Treatment | Pro | Con |
|-----------|-----|-----|

**SKILL: Assessing skill in problem-solving**

*Problem Recognition Tasks*: involves presenting to the participants a few examples of common problem types. The participants are to recognize and identify the particular type of problem each example presents.

**SKILL: Assessing skill in application and performance**

*Directed Paraphrasing*: the participant translates information into terms they will understand. This strategy assesses the participants' ability to summarize and restate important information and concepts in their own words.

*Application Cards*: a technique used after participants have heard an important principle, theory, or procedure. The instructor hands out an index card and asks the participants to write down at least one possible, real-world application for what they have just learned. This strategy allows faculty to know how well the participants understand the possible applications of what they have learned. For the participants, it prompts them to quickly relate the newly learned concepts to their prior knowledge.

**ATTITUDE: Assessing participants' attitudes and values**

*Opinion Polls*: a strategy to indicate agreement or disagreement with a particular statement. It provides anonymity for the participants and allows the presenter to understand the knowledge level of the audience. This assessment technique may be used in the beginning, middle or end of a topic.

*Self-Confidence Surveys*: a few simple questions aimed at getting a rough measure of the students' self-confidence in relation to a specific skill or ability.

Information adapted from: Angelo TA and Cross KP. *Classroom Assessment Techniques, A Handbook for College Teachers*, 2<sup>nd</sup> ed. San Francisco: Jossey-Bass, 1993.

**6. Educational Materials and Visual Aids for PowerPoint Slides**

Your presentation materials will be distributed to the participants, either electronically or hard copy. You are encouraged to provide any additional handouts that may serve as a guide or provide additional sources of information/reference tools to enhance the participant's knowledge.

**GUIDANCE:**

- Keep visuals simple to convey one idea or thought per visual
- Use visuals as outline for content
- Place points in order of importance
- Use slide build sequences and fill-in-the-blanks
- Keep grammar and punctuation consistent throughout
- Keep copy and design simple, clear and large
- Keep artwork simple and uncluttered
- Align text to left
- Use bullets rather than letters or numbers

- Upper and lower case are easier to read than all upper case
- Use graphics instead of text whenever possible (pie or bar charts, graphs, tables, etc.)
- Use typeface that projects clearly and plainly (e.g. sans-serif, calibri, arial)
- Use horizontal or vertical lines to create zones on the visuals (e.g., title above line, information below; columns of information).
- Show visuals only when referring to them Don't read visuals - relate to audience rather than to your audio-visual support

#### Properties of good visual aids:

- Each has a clear, distinct purpose for the audience, which is reflected in the title as well as the design of the visuals.
- All information presented is double checked for accuracy of data, spelling, and grammar
- Unnecessary detail is avoided with information selectively and concisely presented, without repetition
- Visuals are consistent in size, color, graphics and style
- When graphics are utilized, words are kept to a minimum
- A good visual should be understandable, without need for lengthy explanation, reinforcing, rather than repeating the presentation
- Slides:
  - Appropriate for medium to large groups
  - When essential information results in a lengthy slide, simplify the slide by making additional slides, each making a specific point
  - Provide information in graphs rather than tables or text to more effectively illustrate key points.

#### Properties of good text slides:

- If your presentation is scheduled for 60 minutes – a PowerPoint presentation should include no more than 50 slides.
- Use colors wisely - light colors on dark background. Blue background with white or yellow font is good, lights in the room can be kept up higher. Warm colors -red, yellow, orange -are good to focus attention on an item. Cool colors -blue, green, purple -are good background colors. Use complementary colors (blue background with yellow letters). Elderly prefer red, yellow and orange and have trouble discriminating between greens, blues, purples and violets