



HELPFUL HINTS ON SESSION

DEVELOPMENT:

Learning Objectives

Learning Assessments

Active Learning



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ACPE Compliance

ASHP promotes quality education programs that are free from commercialism and bias. **ALL CE PROGRAMS MUST INCLUDE AN ACTIVE LEARNING STRATEGY AND LEARNING ASSESSMENT FOR EACH PROGRAM OBJECTIVE** in compliance with standards passed by the Accreditation Council for Pharmacy Education (ACPE). ACPE is the body that accredits ASHP as a provider of continuing pharmacy education.

As a presenter, you share ASHP's mission to provide the best educational programs for all attendees. Maintaining ACPE accreditation status is vital to ASHP's mission. If you would like more information about the standards, visit: <http://www.acpe-accredit.org/standards/default.asp>.

How to Develop a Quality Program

Please visit ASHP's **For Presenters** Website where you will find tools and resources to assist you in the development of a quality educational program reflective of ACPE Standards and ASHP's educational guidelines.

Visit: <http://www.ashp.org/ForPresenters.aspx>

Before Preparing Your Learning Objectives

Learning objectives set the tone and direction for what participants are expected to do and learn during the educational program. Before preparing your learning objectives, have a clear picture of the desired learning outcome. Consider the following question and answers as starting points for creating your learning objectives and session content:

Is the intent of this education program to?

- ✓ provide new knowledge
- ✓ enhance cognitive skills
- ✓ develop psychomotor skills
- ✓ strengthen problem-solving
- ✓ change attitudes and beliefs



Preparing Your Learning Objectives

- Create objectives that are specific and measurable or observable. For example, you *cannot* observe whether a learner comprehends information. You *can* measure *or* observe if a learner can accurately list, classify, or compare information.
- Objectives must be supported by the instruction in the educational program. If you are not going to teach it, do NOT create an objective for it.
- Good learning objectives define the behavior learned as a result of attending the educational program, not what the program will teach.
 - Wrong:** The objective of this article is to teach how to write effective cognitive educational objectives and multiple-choice test questions.
 - Right:** After reading this article, readers will be able to explain guidelines for writing effective cognitive educational objectives and multiple-choice test questions.
- Do not use abbreviations or acronyms in learning objectives (e.g. VTE). Instead, spell it out.

Examples of Terms to Use for Learning Objectives					
After completing this activity, the learner should be able to...					
To Recall	To Understand*	To Use	To Analyze	To Synthesize	To Judge
Define	Compose	Apply	Breakdown	Arrange	Appraise
Identify	Compile	Calculate	Categorize	Construct	Choose
Label	Describe	Choose	Compare	Create	Compare & Contrast
List	Discuss	Demonstrate	Debate	Design	Conclude
Name	Explain	Employ	Determine	Develop	Evaluate
Recall	Express	Perform	Diagram	Extend	Justify
Recite	Give examples	Solve	Distinguish	Formulate	Select
State	Say in own words	Use	Outline	Prepare	Support

ACTIVE LEARNING & LEARNING ASSESSMENT

All CE sessions are required to incorporate **active learning strategies**, as well as a **learning assessment** for *each* of your session learning objectives. Active learning strategies engage the audience in the activity and should be appropriate for your session type as outlined in the table below. Learning assessment involves feedback to learners on how well they have answered questions or completed a learning exercise, such as a case study.

MATCHING ACTIVE LEARNING STRATEGIES TO ACTIVITY TYPE

Below are ideas on how to incorporate active learning into your session. This list should serve as a guide and is not meant to be comprehensive.

Active Learning Strategy	Knowledge-Based Activity	Application-Based Activity
Lecture with questions	✓	✓
Games and quizzes to practice recall	✓	✓
Demonstration		✓
Example with practice		✓
Interactive case study		✓
Interactive scenario		✓
Role play		✓
Simulation		✓
Application exercises		✓
Practice exercises		✓

For more details, see **Appendix A**.

ASSESSMENT OF LEARNING AND ASSESSMENT FEEDBACK

	Knowledge-Based Activity	Application-Based Activity
Assessment of Learning	Must include assessment questions structured to determine the recall of facts based on the learning objectives. Techniques can be informal such as audience response systems, color cards, or the raising of hands.	Must include case studies structured to apply the principles learned based on the learning objectives.
Assessment of Feedback	Feedback may include the correct response to questions. For incorrect responses, communicate that a question was answered incorrectly and provide rationale for the correct response.	Feedback may include the correct evaluation of case studies. When responses are incorrect, explain the rationale for the correct response.

PREPARING SELF-ASSESSMENT QUESTIONS AND ANSWERS




Develop one question/answer for each objective.

Consider:

- Questions must be written either in multiple-choice or true/false format.
- Questions must be simple, clearly stated, and relate only to the educational objective for which they were designed.
- Pose the question in the affirmative; avoid the use of negative statements such as "not" and "except" because they often confuse the learner.
- Answer choices should be specific and distinct, and not overlap with the other answers.

Avoid using the same or similar words in both the question and the correct answer as this may clue the learner to the correct answers.

APPENDIX A: ACTIVE LEARNING STRATEGIES

<p style="text-align: center;">Polling</p> <p>Get to know your learners by asking about who is in the audience. Examples: “By a show of hands, how many clinical specialists are in the audience?”</p> <ul style="list-style-type: none"> • How many directors? • How many from small/rural hospitals? • How many from the west coast? • How many have implemented an informatics program before? • How many have some experience with medication reconciliation?” <p>Choose factors about the audience that are relevant to your topic and poll so that you and your learners can see who is there. Polling can ask questions about what the learners are doing related to the material. Relate the responses to the polling questions to the session topic.</p> <p>Examples:</p> <ul style="list-style-type: none"> ▪ “How would you describe your level of implementation of medication reconciliation processes? High? (show of hands) Medium? Low? Today you’ll learn how to increase the implementation of these programs.” ▪ “How many of you have an emergency pharmacist in your ED?” How many are full-time? How many are more than half-time? How many are less than half-time? In today’s session we’ll show you how to get support for increasing pharmacist time in the ED.” <p>This method can be used with an electronic Audience Response System (ARS) or with the “low-tech” version: hand-raising. </p>	<p style="text-align: center;">Questions / Quizzes / Tests / Games</p> <div style="text-align: right;"></div> <p>Ask multiple-choice or true/false questions. Have participants raise their hands for the different response options or simply have them note their answer privately, then provide the answer. Questions can be used at the beginning, during and/or at the end of a session. Pre- and post-test questions can be used to start and end a session. Questions can be turned into a game such as “Jeopardy” by giving the answer and asking participants to identify the question. An example of a question used at the 2008 Summer Meeting Joint Commission session by speaker Darryl Rich was:</p> <p>“For MM.2.20 – Medication Storage, which of the following was the top compliance issue scored on 2007 surveys:</p> <ul style="list-style-type: none"> A. Refrigerator temperature checks B. No policy on how medications handled from removal/dispensing to medication administration and returned if not used. C. Medication Security D. Narcotic Control & Wastage” <p>A “Jeopardy” question in a session on active learning strategies was:</p> <p style="padding-left: 40px;">The answer is: “A hand-raising activity good for engaging an audience at the beginning of a session.” The question is: “Polling.”</p>
<p style="text-align: center;">Self-Assessment</p> <p>Have the participants complete a self-assessment tool that gives them insight into their current knowledge or skill level and helps them identify their need for the information the session will be covering. The tool can be formal (a commercially available instrument, such as the “Insight Inventory” for leadership skills (<i>Insight Institute, Inc.</i>) or an informal self-created scale that may, for example, ask participants several questions about their level of skill or experience in different aspects of your topic. For example, an informal self-assessment of presentation skills asks participants to rate their level of agreement with statements such as, “I make appropriate use of gestures when appropriate.” and “I make eye contact with audience members.”</p>	<p style="text-align: center;">Interactive Scenario</p> <p>A scenario describes a situation to be effectively resolved, requiring the skill(s) being taught in an educational program. The participants discuss what they think should be done in the situation. An expert gives feedback to participants. Participants can discuss in small groups, then report their ideas to the whole group. You, as the expert, give feedback on whether or not their ideas are likely to be effective. In addition, fellow participants can share experiences and feedback.</p> <p>For example, for a program for supervisors on performance appraisal skills, describe a problem employee and ask how they can be most effectively managed during their performance review.</p>
<p style="text-align: center;">Application Exercise</p> <p>In an application exercise, participants are asked to apply, or think about how they will apply, what they have learned. Participants may do this type of exercise independently, such as by filling out a worksheet designed beforehand for this purpose, or they can be asked to discuss it with others near them.</p> <p>For example, participants can be asked to list challenges and obstacles they may face and strategies for overcoming the obstacles when implementing an informatics project, or they could form small groups and list steps they will take to apply something in practice that they have learned in the session. An advantage of working with others is that participants can brainstorm together and hear different perspectives.</p>	<p style="text-align: center;">Interactive Case Study</p> <p>Present a case in which you ask the participants to answer questions about the patient and their treatment. For example, what information do they need about the patient? What treatment do they recommend? How would they handle new developments in the case that you describe to them?</p> <div style="text-align: right;"></div>