



Association of Social Work Boards
ACE Resource
Guidelines for Developing Posttest Questions

ACE requires posttests (or a variation) for all distance education offerings.

Testing Options for live webinars and live teleconferences:

ACE will accept either a:

1. Posttest – standard form as described in this resource document
OR
2. Discussion questions embedded within the content of the course
 - A. Interactivity / participation must be demonstrated:
 - Attendance is monitored via distance learning technology
 - Interaction is assured through sound instructional design practices, and continued interactivity between faculty and learner
 - B. Acceptable examples: polling questions, case study discussion, live/virtual chat, Q&A, and/or interactive whiteboards

Testing Options for home study, online courses, recorded webinars, and hybrids (asynchronous, self-paced):

ACE will accept:

1. Posttest – standard form as described in this resource document
2. Posttest format consisting of *essay question-and-answer* which meets the following requirements:
 - An acceptable rubric for *question-and-answer* format posttest must be developed and utilized by the ACE provider organization **demonstrating objectivity and impartiality in the testing**
 - The ACE provider must be prepared to submit an explanation or demonstration of the posttest and the rubric

The following guidelines were developed to assist providers in preparing and creating standard posttest forms that accurately assess participant learning.

I. Plan test content and format

- Develop learning objectives based on Bloom’s Taxonomy of Educational Objectives (chart below)
- All test questions should measure course learning objectives and/or course content
- Determine length and format of the test
- Number of test questions per CE credit hour = 10 for the first hour, 5 for each additional hour (see ACE Distance Learning Guidelines)

II. Write test questions

- Create test questions using the following guidelines
- Write clear directions for each group of questions

DO	DON'T
Match a test item to a specific learning objective, or an important idea in the course content.	Ask questions that do not assess a learning objective or important point in the course content.
Write each question clearly and understandably for the target audience.	Focus on trivial issues that promote the shallow memorization of facts or details.
Write succinct questions.	Make test items intentionally difficult or tricky.
Include a variety of test question formats (e.g. T/F or multiple choice).	Intentionally target test questions toward a specific subset of participants.
Be sure that each test question has one undisputedly correct answer.	Include more test items than can be answered by the average participant in the designated amount of time.

Write test questions at a level of difficulty matching the level of the course learning objectives.	Use questions provided by a publisher's test bank without reviewing each item for its relevance to course-specific learning goals.
Have a consistent number of response options.	Use the responses "all of the above" or "none of the above".
Create test questions that require participants to have completed the course.	

III. Field/pilot test the posttest

- Administer the posttest as part of the field/pilot test for the course (See ACE Resource, "Course Development Checklist")
- Score the posttests

IV. Revise and correct posttest questions

- Examine outcomes of the posttest to identify problems with the test overall, or with specific test questions, taking into consideration:
 - Is the level of difficulty of the individual question appropriate for the course level?
 - Is the question related to the educational objectives of the course or an important idea in the content?
 - Does the question contain unnecessary information?
 - Is there a better way to write the question?
 - Does it express a clearly defined problem or task?
 - Could it be worded more simply?
 - Could any of the incorrect answers (distracters) be correct?
 - Do the incorrect answers make sense and fit grammatically with the question?
 - Is the correct answer the best choice?
 - Is the question successful in discriminating between more knowledgeable and less knowledgeable students?
- Revise, edit, or delete test items if necessary

Tips to improve the overall quality of test items and assessments:

- Prepare more test questions than you need; review and delete ineffective questions before giving the test.
- Review all test questions once they are compiled for the test to ensure that the wording of one question does not give away the answers to another question.
- Field/pilot test questions to identify points of confusion or grammatical errors.
- Avoid questions asking about more than one thing (e.g. Low intelligence and discrimination are the root causes of poverty. T/F)
- Questions may be written as either direct questions or incomplete statements. When possible, a direct question is preferable as it is generally easier to read.
- Avoid negatively worded items (e.g. Convicted sex offenders should not be registered in the community in which they live. T/F)
- Avoid biased questions (e.g. those that subtly or not so subtly, encourage one response over another.)

Summary of Bloom's Taxonomy of Educational Objectives for the Cognitive Domain		
Level	Definition	Question Cues
Knowledge	<ul style="list-style-type: none"> • Observation and recall of information • Knowledge of dates, events, places • Knowledge of major ideas • Mastery of subject matter 	List, define, tell, describe, identify, show, label, collect, examine, tabulate, quote, name, who, when, where, etc.
Comprehension	<ul style="list-style-type: none"> • Understanding information • Grasp meaning • Translate knowledge into new context • Interpret facts, compare, contrast • Order, group, infer causes • Predict consequences 	Summarize, describe, interpret, contrast, predict, associate, distinguish, estimate, differentiate, discuss, extend
Application	<ul style="list-style-type: none"> • Use information • Use methods, concepts, theories in new situations • Solve problems using required skills or knowledge 	Apply, demonstrate, calculate, complete, illustrate, show, solve, examine, modify, relate, change, classify, experiment, discover

Analysis	<ul style="list-style-type: none"> • Seeing patterns • Organization of parts • Recognition of hidden meanings • Identification of components 	Analyze, separate, order, explain, connect, classify, arrange, divide, compare, select, explain, infer
Synthesis	<ul style="list-style-type: none"> • Use old ideas to create new ones • Generalize from given facts • Relate knowledge from several areas • Predict, draw conclusions 	Combine, integrate, modify, rearrange, substitute, plan, create, design, invent, what if?, compose, formulate, prepare, generalize, rewrite
Evaluation	<ul style="list-style-type: none"> • Compare and discriminate between ideas • Assess value of theories, presentations • Make choices based on reasoned argument • Verify value of evidence • Recognize subjectivity 	Assess, decide, rank, grade, test, measure, recommend, convince, select, judge, explain, discriminate, support, conclude, compare, summarize

Resource Links:

- Park University Center for Excellence in Teaching and Learning (<http://www.park.edu/cetl/>) 8-2-11
- [Cornell University Construction of Objective Tests](http://www.cte.cornell.edu/faculty/materials/TestConstructionManual.pdf) (<http://www.cte.cornell.edu/faculty/materials/TestConstructionManual.pdf>) 8-2-11
- ASWB Examination Development 8-23-11