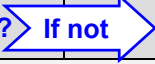


How to review test items (For content experts and for anyone with good writing skills)

1. Use marked-up copy of the test answered by volunteers in the pilot tests along with the official key, and review the items **following the table below**.

Does the item meet the criteria below?	If not 	How to fix it:
<i>For content experts</i>		
<input type="checkbox"/> 1. The item tests a major point of the course, i.e., something that participants should have learned by the end of the course.	<input type="checkbox"/> 1. Do not use the item. If needed, create another item testing a major point. (Major points should be identified in the test specification matrix.)	
<input type="checkbox"/> 2. You expect less than half of the participants to know the answer before the course and more than half at the end of the course. (If the item was used before, check the test results.)	<input type="checkbox"/> 2. Try not to use the item, as it is unlikely to be a major learning point of the course. If needed, create another item of average difficulty level.	
<input type="checkbox"/> 3. The key is unambiguous to experts.	<input type="checkbox"/> 3. Rephrase the key and/or some distractors (i.e., wrong options).	
<input type="checkbox"/> 4. The key is not revealed by another item.	<input type="checkbox"/> 4. Don't ask both items on the same test or rephrase the item that gives the clue.	
<input type="checkbox"/> 5. The item tests the same piece of knowledge as the other item in its pair.	<input type="checkbox"/> 5. Write a paired item testing the same piece of knowledge. (See " How to pair test items. ")	
<input type="checkbox"/> 6. The item relates to the same cognitive domain (defined in the test specification matrix) as the other item in its pair.	<input type="checkbox"/> 6. Write a paired item relating to the same cognitive domain, as defined in the test specification matrix.	
<input type="checkbox"/> 7. The item has a similar level of difficulty as the other item in its pair. (If the pair was never used before, estimate the apparent level of difficulty. If the pair was used before, check the item analysis. The score of the post-test item should be higher than the pre-test item.)	<input type="checkbox"/> 7. Write a new item or rephrase the item to make it read closer to the other item in its pair.	
<input type="checkbox"/> 8. The item has the same format as the other item in its pair. (Formats are: "normal", "compound" or "not" items; See " How to pair test items. ")	<input type="checkbox"/> 8. Rephrase either item to have the same format while keeping similar content, cognitive and difficulty levels. Use preferably the "normal" format.	

Does the item meet the criteria below?	If not	How to fix it:
<i>For all reviewers¹</i>		
<input type="checkbox"/> 9. The item has one key and four distractors. The last distractor is "I don't know."		<input type="checkbox"/> 9. Add or delete distractors, as needed.
<input type="checkbox"/> 10. The item is right to the point. It does not include superfluous information.		<input type="checkbox"/> 10. Delete all unnecessary words. Move words that are repeated in all options into the stem (item's beginning).
<input type="checkbox"/> 11. The language is simple and direct. There is no jargon (unless the course aims to teach the jargon).		<input type="checkbox"/> 11. Simplify wording to focus the item on testing content rather than language mastery.
<input type="checkbox"/> 12. There is no acronym (unless the term is known better by its acronym, e.g., AIDS).		<input type="checkbox"/> 12. Spell out acronyms.
<input type="checkbox"/> 13. The stem grammatically corresponds to every response option. The stem does not give a clue to one option through its grammatical form, e.g., plural/singular or male/female.		<input type="checkbox"/> 13. Use parallel grammatical form for all response options; or use a grammatical form that does not display the grammatical difference, or indicate in parenthesis the various grammatical forms that fit all answers.
<input type="checkbox"/> 14. All response options have about the same length.		<input type="checkbox"/> 14. Delete needless words from the longer options or add words to the shorter ones.
<input type="checkbox"/> 15. Both items in the pair have similar lengths.		<input type="checkbox"/> 15. Delete needless words from the longer item or add words to the shorter one.
<input type="checkbox"/> 16. There are no spelling or grammatical mistakes. The punctuation is consistent for all options.		<input type="checkbox"/> 16. Fix them.
<input type="checkbox"/> 17. All response options relate to relevant aspects of the stem.		<input type="checkbox"/> 17. Rewrite unrelated distractors.
<input type="checkbox"/> 18. All distractors are plausible.		<input type="checkbox"/> 18. Use common misconceptions to build distractors.
<input type="checkbox"/> 19. There are no double negatives.		<input type="checkbox"/> 19. Rephrase positively.
<input type="checkbox"/> 20. There are no absolute words like "always," "never" or "only."		<input type="checkbox"/> 20. Delete them or replace them with modifiers like "most" or "least."
<input type="checkbox"/> 21. The correct answer is not systematically "all of the above."		<input type="checkbox"/> 21. Rephrase the item not to make "all of the above" the correct answer, as it often makes the item too easy. One way is to turn it into a compound item.
<input type="checkbox"/> 22. All issues on the item identified during the pilot phase have been addressed.		<input type="checkbox"/> 22. Raise the remaining issues with a content expert and/or evaluator.

¹ Ultimately the content experts should determine if the suggestions should be followed.

Does the item meet the criteria below?	If not	How to fix it:
<p><i>For items previously used and statistically item analyzed using WBIEG "Item Analysis Summary" The parentheses in italics refer to how issues are flagged on an "Item Analysis Summary" produced with the Toolkit.</i></p> <p><i>If this summary marked the item as "OK", you may skip the part below and review the next item.</i></p>		
<input type="checkbox"/> 23. Less than two third of the respondents answered the item correctly, if it was asked on the pre-test. <i>(The difficulty index is not green.)</i>		<input type="checkbox"/> 23. Rephrase the distractors that were not or hardly selected to make them more plausible. Alternatively don't reuse the item, if the course is to be given to a similar participant group.
<input type="checkbox"/> 24. At least a third of the respondents answered the item correctly, if it was asked on the post-test. <i>(The difficulty index is not red.)</i>		<input type="checkbox"/> 24. If, as expected, the content was taught in the course, rephrase the options that may have been too attractive or write a new item. Alternatively keep the item and strengthen the topic's delivery.
<input type="checkbox"/> 25. The discrimination index is positive. <i>(The discrimination index is not red.)</i>		<input type="checkbox"/> 25. The item may be confusing. Respondents who did well on the test in general failed this item. Rephrase to make the item less ambiguous.
<input type="checkbox"/> 26. No distractors are over-selected, if the item was asked on the post-test. <i>(No options appear in orange background.)</i>		<input type="checkbox"/> 26. The item may be confusing. A distractor may be too attractive. If it is a misconception that the course tried to overcome, strengthen the next course on this point. Otherwise, rephrase the option to make it less appealing and/or make the other options more plausible.
<input type="checkbox"/> 27. No options are under-selected. <i>(No options appear in red.)</i>		<input type="checkbox"/> 27. Rephrase some options to make them more plausible or make the over-selected options less attractive.
<input type="checkbox"/> 28. The post-test item scored higher than the pre-test item within the pair. <i>(The pair ID is not orange.)</i>		<input type="checkbox"/> 28. Rephrase one item on the pair to make it closer to its paired item. Use the item in the pair with the best item statistics as model, and rephrase the other item.

2. Agree on the final items. Then use the guidelines on [how to prepare the pre- and post-tests forms](#) to produce quality test forms.