**Guidance for writing pre/post quizzes to assess training knowledge**

This resource offers guidance for writing multiple choice pre/post questions. By assessing baseline and post-training knowledge, we can draw some conclusions about whether a training was effective at improving trainees’ knowledge about the subject matter of the training. The tips for question writing are these:

* The questions should get at subject matter trainers believe the target audience NEEDS to know but likely DOES NOT know now AND which is covered in the training. The concepts covered in the questions should not be too “in the weeds.”  They should be important concepts that the target audience should know in order to use the content in their work.
* Each question should have the same number of multiple-choice options (i.e., four options).  We have recently begun to offer an “I don’t know” option and encouraging people to select that option if they truly don’t know the answer (i.e., rather than guessing). If an “I don’t know” option is offered, it is important to offer at least three other viable options.
* Ideally the questions will test comprehension not just recall.  In other words, if we ask people to interpret facts, explain cause and effect, predict results, then we have asked them to apply what they learned (not just recall something from a slide).  That said, sometimes recall itself is very important (e.g., the name of a drug or bacteria or procedure that they will need to recall for use in the real world).
* Most of the words should be in the question itself and the answer options should be short and clear and answer options should be about the same length. That said, the questions themselves shouldn’t be overly wordy.  Concise and clear is always best.
* The “incorrect” answer options should be reasonable but, nevertheless, still incorrect answers to the questions; although tricky, it is essential. While we don’t want trainees to be able to guess the right answer (i.e., because only one answer is plausible), we also don’t want to confuse them by offering two or more options that could possibly be correct (or easily confused as correct). This is the trickiest part of good question writing.
* Avoid double negatives…they confuse people.  So, instead of “which would NOT be ineffective” go with “which would be effective.”
* Mix up the order of correct answers (i.e., don’t make A the correct answer to every questions).
* The total number of pre/post questions may vary from training to training. Trainers should consider how many questions are needed to assess the essential concepts covered in the training. Short trainings (e.g., 1 hour), for example, may be able to get away with five or ten questions to assess changes in knowledge whereas longer trainings will likely require more questions to adequately assess trainee learning.