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Policy on Writing Multiple Choice Pre/Posttest Questions

When developing posttest questions, please use the following best practices:

- Before starting to write questions, review the educational material, the target audience, and the educational objectives/goals.

- **Questions**

    o Should tie back to the educational objectives/goals, which enables us to measure the effectiveness of the activity in meeting those objectives/goals. Ask yourself: what important point piece of knowledge/skill related to the learning objectives do we want to measure if learners know/can apply?

    o Should be a mix of knowledge- and competence/skill-focused questions (i.e., don't want to just ask questions that measure knowledge).

    o Should be multiple choice (not True/False). Learners have a 50/50 chance of guessing the correct answer.

    o Should be specific and focused, and avoid excessive language and detail

        ▪ For questions that measure application of knowledge, please keep the details of cases to the minimum necessary for learners to answer the question.

    o Should be free of all bias (age, ethnicity, gender, race, religion, etc)

- **Answers**: Each multiple choice question should have four answer options, with a single, best/correct answer and 3 distractors

    o The 3 distracters should be incorrect but at the same time plausible and reasonable

    o All answer options should be similar in length and detail

    o Avoid answer options that suggest multiple answers (e.g., both a and c are correct)

    o Try to avoid answer groupings, eg, "all" or "none of the above"

    o Avoid negative phrasing; use "except" instead of "not" when necessary

    o Avoid absolutes, eg, "always" or "never"

- **Correct answer** should be identified for each question

- A **brief explanation/rationale** for the correct answer must be provided and will be shared with learners after they pass the post-test.

- o Ideally the explanation should be supported by a reference(s); if expert opinion, this should be noted

- o Avoid repeating the language from the question stem in explaining why an answer is correct.

- o Explaining in the rationale why the other 3 answers are incorrect is also helpful in promoting learning.

For more on writing posttest questions, see:

Collins J. Writing Multiple-Choice Questions for Continuing Medical Education Activities and Self-Assessment Modules. Radiographics. 2006. 26(2):543-551. Available at: http://pubs.rsna.org/doi/pdf/10.1148/rg.262055145.

Dickinson M. Writing Multiple-Choice Questions for Higher-level Thinking. 2011. December 5. Available at: http://www.learningsolutionsmag.com/articles/804/writing-multiple-choice-questions-for-higher-level-thinking.

Eckerstein JB. Creating a Multiple Choice Posttest for a CME Activity. Almanac. 2002. 24(8):3-4.