



Multiple-Choice Item Writing Guidelines (Self-Assessment Credit: Post-Test Tips)

INTRODUCTION

A standard multiple-choice question consists of two standard parts: a problem (stem) and a list of suggested solutions (options). The stem is constructed in the form of a complete question or statement. The list of options contains one correct or best option (answer) and a number of incorrect or inferior options (distractors). See example below:

1. A physician has discovered a mutant form of insulin that lacks a signal peptide. —————→ STEM
What will be in the final cellular destination of the mutant insulin?
- | | | |
|--------------------------|--------------|------------------|
| a. Endoplasmic reticulum | [DISTRACTOR] | } —————→ OPTIONS |
| b. Cytosol | [ANSWER] | |
| c. Extracellular space | [DISTRACTOR] | |
| d. Peroxisome | [DISTRACTOR] | |

FORMAT GUIDELINES FOR MULTIPLE-CHOICE ITEM WRITING

General Guidelines

- Use proper grammar, punctuation, and spelling.
- Items and options should be clear and unambiguous.
- Content should be independent from item to item. For example, avoid making the answer of one item correctly dependent on knowing the correct answer to another item.
- Avoid the use of abbreviations such as “35 yo.” Instead, spell out “35-year-old.”

Stem

- The stem should not begin with the phrase “Which of the following is true/false?” or “All of the following statements are correct EXCEPT.”
- The stem should be stated in question form, such as “What will be in the final cellular destination of the mutant insulin?” or completion form, “The final cellular destination of the mutant insulin is_____.”

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Options

- The grammar/tense of each distractor should be consistent with the stem.
- Distractors should be parallel in form. For example, four complete-sentence options could have parallel construction such as starting with a verb and cover similar content.
- Distractors should be similar in length.
- When numeric options are used, the options should be listed in numeric order and in a single format. For example, order numbers from lowest in value to highest.
- Use no more than four answer options. There should be only one correct, best answer choice for each item.
- Avoid including "All of the Above," "None of the Above," True/False, "Both A and B" type distractors as answer choices.

CONTENT GUIDELINES FOR MULTIPLE-CHOICE ITEM WRITING

General Guidelines

- Construct each item to assess one educational learning or instructional objective.
- Avoid textbook, verbatim phrasing when developing the item.
- Avoid items based on opinions. Never use phrasing such as "What would you ... do," " ... use," " ... try," and so on.

Stem

- Word the stem positively; the stem should not contain negatively phrased items (for example, those with **except** or **not** in the lead-in question).
- The stem should be structured where a learner could answer the question without first seeing the options available.
- The stem should not contain irrelevant or superfluous information.

Options

- Distractors should be plausible.
- Distractors should be written clearly and approximately homogeneous in content, length, and grammar. All options must address the same content.
- Distractors should be mutually exclusive.
- Distractors should be free from clues as to which response is correct.

BIBLIOGRAPHY

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