

# WRITING EFFECTIVE MULTIPLE-CHOICE QUESTIONS

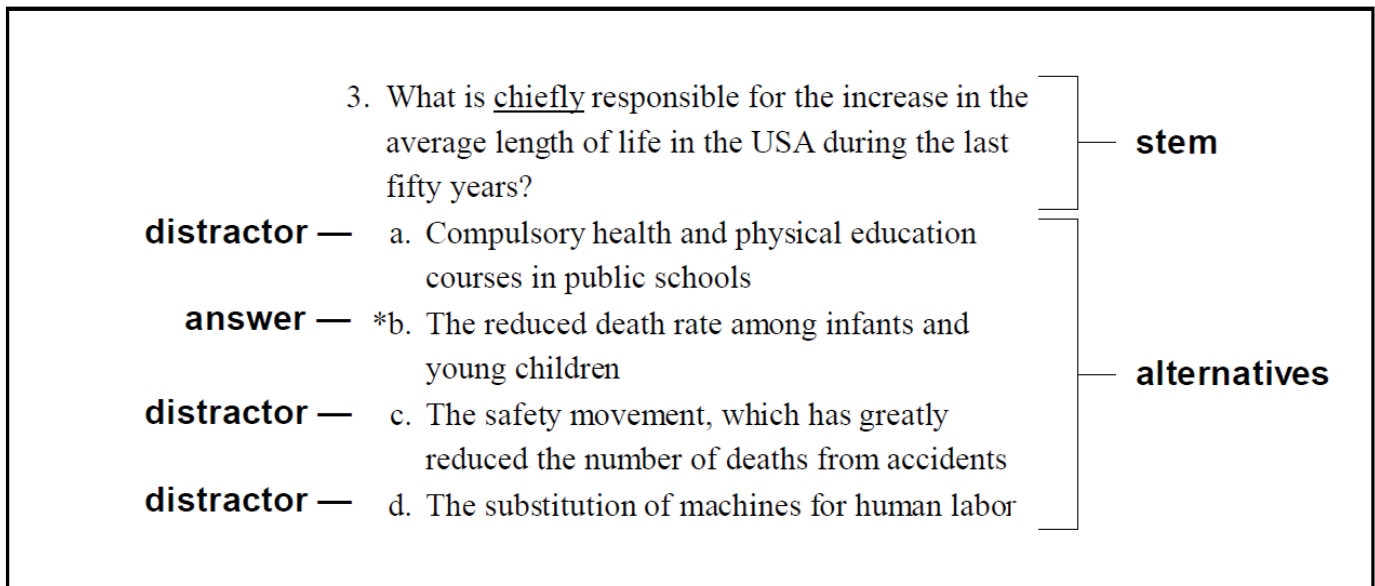
## INTRODUCTION

Multiple-choice questions are used commonly in online courses. They are versatile and efficient, and most course management systems provide a tool that automatically grades these types of questions. Multiple-choice tests are reliable: the higher number of questions a test has, the more reliable it is. For example, in a 25-question test, a student has a 1-out-of-942,651 chance of scoring 70% by guessing alone. These advantages are severely limited, however, if the questions aren't well written.

Well-written multiple-choice questions can measure given objectives, while poorly written questions may not only confuse students, but lack validity in their measure of academic achievement.

## EXAMPLE

Breaking down the parts of a multiple-choice question will help in the process of constructing a well-written question.



The anatomy of a multiple-choice question\*

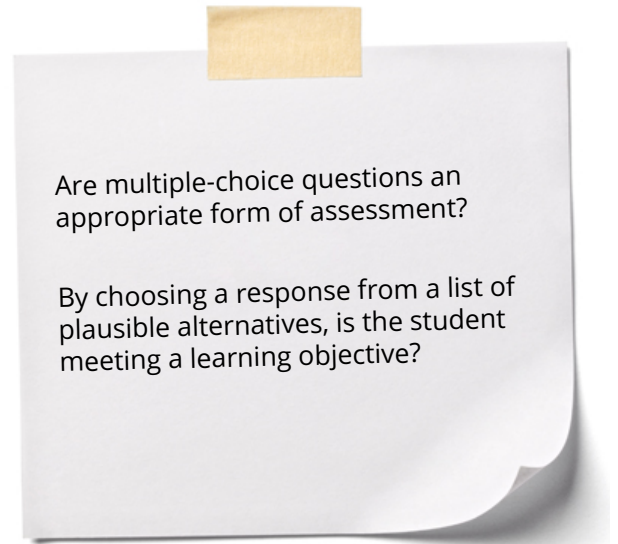
The **stem** should be meaningful, present a clear problem, and contain no irrelevant information. **Alternatives** should be plausible, stated clearly, and free from clues about which response is correct.

## A CLOSER LOOK

There are many tips for writing good stems and alternatives. Here is a checklist that is a good summary of these tips. Using your knowledge of the anatomy of a multiple-choice question, you can apply this checklist to question construction.

### Checklist for Reviewing Multiple-Choice Items\*

- Has the item been constructed to assess a single written objective?
- Is the item based on a specific problem stated clearly in the stem?
- Does the stem include as much of the item as possible, without including irrelevant material?
- Is the stem stated in positive form?
- Are the alternatives worded clearly and concisely?
- Are the alternatives mutually exclusive?
- Are the alternatives homogeneous in content?
- Are the alternatives free from clues as to which response is correct?
- Have the alternatives “all of the above” and “none of the above” been avoided?
- Does the item include as many functional distractors as are feasible?
- Does the item include one and only one correct or clearly best answer?
- Has the answer been randomly assigned to one of the alternative positions?
- Is the item laid out in a clear and consistent manner?
- Are the grammar, punctuation, and spelling correct?
- Has unnecessarily difficult vocabulary been avoided?
- If the item has been administered before, has its effectiveness been analyzed?



## ADDITIONAL RESOURCES

### ***\*How to Prepare Better Multiple-Choice Test Items: Guidelines for University Faculty:***

This paper offers a detailed look into the advantages and disadvantages of multiple-choice questions and the rationale for their use, and offers detailed examples of poorly written questions and their well-written counterparts.

### ***Writing Good Multiple Choice Test Questions:***

This Vanderbilt University Center for Teaching web page offers a concise list of strategies (with examples) for writing good multiple-choice questions, as well as a section on writing multiple-choice items that test higher-order thinking.