



Item Writing Best Practices

Quick Reference Guide

The Donath Group, Inc.
30 Shirley Road
Waltham, MA 02452-8031
781.647.4229
Fax: 781.647.4557
donathgroup.com
info@donathgroup.com

The Quick Reference Guide is a tool used by subject matter experts (SMEs) in their efforts to develop reliable, fair and valid test items. The information contained in this guide is subject to change without notice and should not be construed as the only correct way to write high quality test items.

This guide is based on years of experience in writing, reviewing, and evaluating test items and their performance in many high-stakes certification examinations.

This guide is only available to The Donath Group's clients, potential clients or designated business partners.

Unauthorized copying or distribution in printed, electronic, or any other form in whole or in part, is prohibited without the prior written permission or by contract with The Donath Group, Inc. (Donath).

INTRODUCTION

Quality test items are essential in developing and publishing a successful examination. A good test is only as good as the quality of the test items. When individual test items are not appropriate and do not perform well, how can test scores from these items be meaningful?

Test item development is one of the most critical steps in building a test that properly meets professional standards. Test items are the building blocks of an exam and must be developed to precisely measure the objectives prescribed by the exam blueprint (test specification) and meet quality standards.

Our primary concern is how to create well-written and useful questions. Please understand that not all test items are perfect when first written. It takes time and practice to write top-notch questions that can elicit responses that truly represent a person's knowledge and skills. This guide should provide useful information towards achieving this goal.

GENERAL GUIDELINES

All test items are composed of: an item stem (question), correct answer(s), and distracters (incorrect responses). Keep these points in mind:

- A test item **MUST** measure the intended objective
- Keep questions simple and straight-forward
- Item difficulty should reflect target audience's competency to perform the job
- Do not use language that assumes a superior attitude
- Avoid:
 - Contractions
 - Humor
 - Trick test items on insignificant points
 - Lecture or lengthy discussion in the question (item) stem
 - Stem content that may supply the correct answer to other test items (disclosure)
 - Irrelevant material that does not supply information to solve the problem or answer the question
 - Using negatives (NOT, EXCEPT) unless there is NO other way to write an item to cover the content area
 - Using negatives in response options
 - Using words like: Always, None, Never, or All
- Acronyms should generally be spelled out
- Use vocabulary that examinees use and understand easily
- Vocabulary should not be a relevant source of difficulty
- Use complete sentences in the item stem to facilitate accurate translation
- Do not reference obsolete technology - keep current
- Do not test information that one would normally look up in documented information

TEST ITEM REVIEW CHECKLIST

When writing & reviewing test questions, consider these main points:

Accuracy

The test item itself must be completely correct. The conditions or the scenario that is presented should be representative of a situation that a candidate may likely encounter on the job.

Answer Choices

The correct answer must be reviewed for accuracy. Any wrong choices (distracters) should be reviewed to ensure that they are "plausible", but in fact, are definitely wrong. If there is another, more appropriate distracter, note that next to the item you are reviewing.

Congruence

Does the test item match the objective? Check to verify that the item belongs in the Domain/Topic area and is matched to the appropriate enabling Objective. (*Refer to the Test Blueprint, or the Topic/Objective Section.*) If it does not, then identify the correct Domain and Objective number associated with the item.

Job Relevance

Is this essential information that a candidate would need to know to perform the job or is the information just slightly relevant to perform the job? If an item is irrelevant to the job, make a note.

Item Difficulty

Identify how difficult the test item would be to the prospective test candidate who is a competent job performer (the target level). The question should be easily answered by a competent job performer, but be difficult to answer for a non-master of the materials.

ITEM STEM (QUESTION)

- Always begin with Who, What, Why, When, and How, whenever possible.
- Never use "which of the following"
- Present tense, active voice
- Clearly defines a problem
- Free of personal pronouns (I, We, She/He, You)
- Uncomplicated and short as possible
- Free of irrelevant material - no lengthy discussions
- Be self contained - it has everything you need to answer the question
- Keep answer "clues" out of the item stem



ITEM CONTENT

- Focus on critical points for performing the job
 - Avoid special knowledge issues that only a few people know
 - Avoid addressing too detailed or non-critical points that only very advanced people know
- Assess one piece of knowledge or skill per item
- Avoid any content that shows potential bias toward gender/race/ethnic or language groups (unfair)

ITEM RESPONSE

- There is only one correct answer(s) for each item and is correct 100% of the time
- Distracters are:
 - Clearly not the correct answer when the best answer is selected
 - Plausible to someone who does not possess the skill being measured
 - Incorrect answers should contain "likely" mistakes an unskilled person would make
 - Independent and mutually exclusive. Two or more distracters should not mean the same thing
- Item response options should be homogeneous in content
- Answer choices should be similar in length, when possible
- Grammatically consistent with the item stem
- These choices should not be used:
 - "None of the above"
 - "All of the above"
 - "Do not know"



TEST ITEM FORMATS

- True/False questions - not recommended!
- Multiple-choice
 - 1 correct response, 3-4 distracters
- Multiple-response
 - 2 correct responses, 3 distracters
 - 3 correct responses, 3 distracters
- Exhibits
 - Test items have an associated graphic (exhibit) that the question uses to elicit a response
- "Hot Area" Graphics
 - "Point and click" on "hot area"
- Scenarios used to evaluate higher level thinking
 - Outlines a scheme or sequence of events
 - Describe facts, situations and predicted outcomes
 - Identify cause-effect or other critical relationships
 - Useful for problem solving or troubleshooting types of questions
 - Recognize how inferences are related to what is given
 - Identify, collect and analyze related evidence to possible outcomes or consequences

ITEM CONSTRUCTION MODEL FORMATS

Use item structures relevant to the desired levels of thinking

Understanding

- What best defines. . .?
- What is (un)characteristic of. . .?
- What is an example of. . .?

Critical thinking for evaluating

- What is the most effective (appropriate) method for. . .?
- What is better (worse). . .?
- What is the most critical step in this procedure?
- What is (un)necessary in a procedure?

Critical thinking for predicting

- What would happen if. . .?
- Given. . ., what is the primary cause. . .?
- On the basis of. . ., what is the primary cause. . .?

Problem solving when given a scenario

- What is the nature of the problem?
- What is a solution?
- If this happens, what should be done?
- What is needed to solve the problem?
- What is the most effective or efficient solution?
- Why is. . . the most effective solution?

ABOUT US

The Donath Group (Donath) is a professional exam development services consulting organization. Donath assists organizations in the design and development of their professional certification examinations or assessment programs.

Through the years, Donath has developed new and innovative approaches to support client needs. Many of these solutions were designed to help expedite the exam development timeline while maintaining the integrity of the process and the exam products we develop.

Donath uses processes and methods that are well supported and are based on numerous industry articles and academic experts in the fields of psychometrics, statistics and evaluative research.

Donath follows state-of-the-art methods and requirements as set forth by the American Educational Research Association, the American Psychological Association and the National Council on Measurement in Education in their "Standards for Educational and Psychological Testing" (1999) and the US Department of Labor's definitions in their guide to good practices in testing and assessment. Donath is also a member of the Association of Test Publishers and adhere to their computer-based testing guidelines.