

## EXHIBIT 1

### GUIDELINES FOR WRITING MULTIPLE-CHOICE QUESTIONS

---

#### Definitions

"The multiple-choice item consists of a stimulus, called the *stem*, and a number of possible responses, including the correct or best answer plus three or four distractors." (Jacobs and Chase 1992, p. 53)

#### Criteria for Good Multiple-Choice Questions

- The item covers a significant concept and not trivia.
- After reading the stem, the reader should naturally contemplate the answer before reading the answers.
- There is only one right answer. (Hint: Write it first, then write the distractors.)
- Distractors are plausible, but wrong. (Hint: Use common errors or misconceptions. Note: The more similar or homogeneous the options, the more difficult the question.)
- Words and examples are not verbatim from the text.

#### Guidelines for Writing Good Multiple-Choice Items

##### Stems

- The stem should be *precise* and *clear*. It should present a problem and include a verb.
- Use *positive statements*, if possible; for example, instead of "below break-even," say "loss." Do not use a double negative in the question. If a negative statement is required, emphasize that; for example, use **EXCEPT**.
- Include as much *information* as possible in the stem; do not repeat information in the options.
- If an item contains controversial material, cite the authority in the stem; for example, use "According to Professor X...."

##### Options

- 1) Include *four options*: one right answer and three plausible distractors. (Note: If three plausible distractors are not possible, then use fewer options, rather than a silly distractor.)
- 2) Options should be in *grammatically parallel* form; for example, all four could begin with a verb or an adjective.
- 3) If a logical order is possible (for example, dates in chronological order, single words in alphabetical order, or numbers in ascending order), use that order; otherwise, *randomize* the options.
- 4) *Avoid irrelevant clues* that the astute test taker can use for good guessing. The following are some errors commonly made by test writers. Avoid them!
  - The longest answer is often the right answer; there is too much qualifying.
  - The correct option has a verbal association with the stem; for example, a derivative of a word from the stem is used in the option.
  - The stem provides a grammatical clue to the correct option; for example, the stem asks for "...a *(fill in)*," and some options can be eliminated because they begin with a vowel.
  - The options include determinators, such as "all," "never," or "always," that are likely to signify the wrong answer.
- 5) "All of the above" should not be used; it makes a question too easy. "None of the above" should be used only rarely.

---

**Note:** These guidelines are drawn from the following sources: Jacobs and Chase (1992, Chap. 4), Haladyna (1994), Laing (1995), Miller and Erickson (1990), Osterlind (1989), and Roid and Haladyna (1982).

## EXHIBIT 2

### GUIDELINES FOR WRITING SHORT-ANSWER ESSAY QUESTIONS

---

#### Guidelines

- 1) The short-answer essay question should attempt to tap into the higher levels of cognitive processes.
- 2) Make the nature of the task clear.

Use such verbs as <i>Compare...</i> , <i>Contrast...</i> , <i>Describe...</i> , <i>Distinguish...</i> , and <i>Illustrate...</i>	Use such phrases as <i>Give examples of...</i> , <i>Explain how...</i> , <i>Present arguments for and against...</i> , <i>Apply a rule or principle...</i> , and <i>Organize...</i>
---	--
- 3) Make the task as clear as possible—indicate the level of detail required, example(s) needed, evidence required, opinions justified, and so forth.
- 4) Limit the breadth of the essay question. This allows the answer to be relatively brief and specifically tied to a single objective. (Jacobs and Chase 1992, p. 112)
- 5) Write an answer to the question. If the question involves lower-order cognitive processes (knowledge, comprehension, or application), write a model answer. If the question requires higher-order processes (analysis, synthesis, or evaluation), include in the model answer the criteria the student should use to answer the question.

#### Examples, by Level of Cognitive Process Required

##### Knowledge

List five location criteria.

##### Comprehension

Explain the phrase, "location, location, location."

##### Application

Using five location criteria from the course, explain why the casino's location was a good or poor choice.

##### Analysis

Compare the locations of grocery stores and convenience stores. Please cite a particular example of one of each from this city and, using the three most important location criteria covered in this course, explain why the location is appropriate for that type of retailer.

##### Synthesis

A local country nursery, Green Gardening, would like to attract consumers to purchase directly from them. Grocery stores and hardware stores in the city now set up mini-nurseries in the spring and have reduced their sales during the last couple of years. Green Gardening would like to recapture some of the market. Design a print ad for them that focuses on one or more competitive advantages that they have over the temporary garden stores. Include in the ad any information the consumer would need or want to be able to shop at Green Gardening. Don't be concerned about artwork or photos, if deemed necessary; just indicate what would be used. Concentrate on the message and the contents of the ad. They have a limited budget.

##### Evaluation

Briefly describe a retail business that would likely succeed at our site in Devonshire Mall and one that would likely fail. Using five different evaluation criteria, explain the rationale for your choices. (Note: You are not to include any retailer already in the mall.)

---

**Note:** These guidelines were drawn primarily from the following sources: Jacobs and Chase (1992), Roid and Haladyna (1982), and Tenbrink (1982).

**EXHIBIT 3**  
**BLOOM'S COGNITIVE LEVELS AND LEVEL-APPROPRIATE STUDENT ACTIVITIES AND QUESTION VERBS**

<b>Bloom's Cognitive Level</b>	<b>Student Activity</b>	<b>Verbs to Use in Item Stems</b>
Knowledge	Remembering facts, terms, concepts, definitions, principles	Define, list, state, identify, name, who? when? where? what?
Comprehension	Explaining/interpreting the meaning of material	Explain, predict, interpret, infer, summarize, convert, translate, give example, account for, paraphrase
Application	Using a concept or principle to solve a problem	Apply, solve, show, make use of, modify, demonstrate, compute
Analysis	Breaking material down into its component parts to see inter-relationships or hierarchy of ideas	Differentiate, compare/contrast, distinguish ____ from ____, how does ____ relate to ____? why does ____ work?
Synthesis	Producing something new or original from component parts	Design, construct, develop, formulate, imagine, create, change, write a poem or short story
Evaluation	Making a judgment based on a preestablished set of criteria	Appraise, evaluate, justify, judge, which would be better?

**Source:** Jacobs and Chase (1992, p. 19).

# Journal of Marketing Education

<http://jmd.sagepub.com/>

---

## **Student-Generated Exams: Testing and Learning**

Donna H. Green

*Journal of Marketing Education* 1997 19: 43

DOI: 10.1177/027347539701900205

The online version of this article can be found at:

<http://jmd.sagepub.com/content/19/2/43>

---

Published by:



<http://www.sagepublications.com>

**Additional services and information for *Journal of Marketing Education* can be found at:**

**Email Alerts:** <http://jmd.sagepub.com/cgi/alerts>

**Subscriptions:** <http://jmd.sagepub.com/subscriptions>

**Reprints:** <http://www.sagepub.com/journalsReprints.nav>

**Permissions:** <http://www.sagepub.com/journalsPermissions.nav>

**Citations:** <http://jmd.sagepub.com/content/19/2/43.refs.html>

>> [Version of Record](#) - Aug 1, 1997

[What is This?](#)