Multiple-Choice Exam Writing Strategies

(Avoiding the guess work)

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Revised March 2013
# Table of Contents

- Introduction ........................................................................................................ 1
- Structural Components ................................................................................... 2
- 5-Step Exam Writing Process ........................................................................ 3
- Levels of Thinking ........................................................................................... 4
  - Level 1: Knowledge/Comprehension ........................................................... 4
  - Level 2: Application ...................................................................................... 5
  - Level 3: Critical Thinking ............................................................................ 7
- General Guidelines ............................................................................................ 8
- Resources ........................................................................................................... 9
Introduction

Success in writing multiple-choice exams depends primarily on your ability to achieve the following three goals:

1. Study effectively and appropriately store the information in your head.
2. Successfully retrieve this information at exam time.
3. Understand the structure and complexity of the items on multiple-choice exams.

The workbook, "Enhancing Your Study Skills" focuses on the first goal by outlining effective study strategies. If the information is not correctly stored in your head, you will have difficulty retrieving it when needed. The content in this workbook focuses primarily on the second and third goal.

The specific objectives of this workbook are to:

1. Identify the two main structural components of multiple choice exam items.
2. Identify a five step test-taking strategy to use when responding to multiple choice exam items.
3. Identify the levels of thinking required to respond to multiple choice exam items.
Structural Components of Multiple-Choice Questions

The entire multiple-choice question is called an **item**.

Each item consists of 2 parts: a **stem** and the **options**.

- **Stem**: The purpose of the stem is to present a problem in a clear and concise manner. The stem contains all the details needed to answer the question. The stem may be presented as a question or an incomplete sentence that becomes complete when it is combined with one of the options.

- **Options**: These are all the possible answers offered within the item. The best response option is the **correct answer**. The other options are incorrect. These are called the **distracters**.

**Example:**

What type of health assessment focuses on the specific presenting problem of the client?

- a) Complete
- b) Episode ***
- c) Follow-up
- d) Emergency

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5 Step Exam Writing Process

1. Cover the Options
2. Read Stem
   - Pick out key words
3. Uncover
4. Picture answer in your head
5. Match
Levels of Thinking Processes

The nursing regulatory bodies have identified three levels of thinking processes involved in providing safe effective patient care. The multiple-choice exams consist of items from each of these levels, thus ensuring that you are a safe practitioner. The three levels of thinking measured are:

1. Knowledge-Comprehension
2. Application
3. Critical Thinking

Level 1: Knowledge-Comprehension

Knowledge-Comprehension items test your ability to remember/recall information learned and to understand its meaning. These items measure your knowledge of the basic information that forms the foundation of your nursing practice.

Some examples of this information are:

- Facts/Definitions/Terminology
- Categories/Classifications/Sequences
- Principles/Theories
- Trends/Generalizations

The Knowledge-Comprehension level of thinking also requires you to understand the significance of these facts and information. Responding to these items may test your ability to translate, interpret and determine the implications of the information you have studied.
Helpful study strategies include:

- Mnemonics (alphabet cues, acronyms, acrostics)
- Index/Flash cards
- Repetition
- Asking **How** or **Why** questions.
  Why is this information useful/important?
  (e.g. you are taught to use soap when bathing your patients. Ask yourself why.)
- Study in small groups. This is helpful because it facilitates sharing of impressions, opinions and examples.

**Examples:**

What does percussion assess?
- a) consistency
- b) **density** ****
- c) texture
- d) turgor

What should the nurse use to assess the skin temperature of a client?
- a) the nurse’s fingertips
- b) the ulna portion of the nurse’s hand
- c) **the dorsal surface of the nurse’s hand** ****
- d) the palmar surface of the nurse’s hand

**Level 2: Application**

Responding to application items requires you to take the information you have learned and apply it to a new, concrete, practical situation. It involves applying:

- Rules/Principles
- Methods/Nursing Theories/Concepts
  When providing care for your patients.
Helpful study strategies include:

➢ Relating new information to what you already know.

For example, when you are studying body mechanics, apply these principles to your every day activities such as picking up and carrying heavy books or groceries. When learning range-of-motion exercises, practice these with your body.

➢ Recognize commonalities.

A commonality exists when two different situations require the application of the same principle. For example, the principle of gravity (a force that draws all mass in the earth’s sphere to the center of the earth) applies to many nursing situations including:

- Where you would position a urine collection bag.
- The position you would hang an IV bag.
- Where you would position the foot of the bed for a patient with swelling (edema) of the feet and legs.

Examples:

The client becomes extremely anxious after the physician tells him that additional tests will be required to help determine the source of his problem. What is the most appropriate action by the nurse at this time?

a) Inform the client that the doctor knows best.

b) **Encourage the client to verbalize his feelings.**

c) Tell the client that there is nothing to worry about.

d) Leave the room until the client’s anxiety decreases.

Which response should the nurse make when a client tells him/her that she has experienced abdominal pain for three days?

a) “Point to where it hurts.” **

b) “Have you eaten anything in the last 8 hours?”

c) “Have you had any surgery on your abdomen?”

d) “We’ll talk more about your pain latter in the interview.”
Level 3: Critical Thinking

Responding to critical thinking items requires you to interpret a variety of data, to deal with abstractions, to differentiate, and to solve nursing problems (e.g., identify priorities of care, evaluate the effectiveness of nursing actions). This is the highest level of thinking and assesses your ability to analyze, synthesize and evaluate.

Helpful study strategies include:

- Focusing on recognizing differences in material
- Discussions in small groups using case study analysis
- Using a “what if?” type of question approach

Examples:

Ms. Jones has dependent edema and is obese. Which diet should the nurse expect to be ordered for her?

a) Low in sodium and high in fiber
b) Low in sodium and low in calories **
c) High in sodium and high in protein
d) High in sodium and low in carbohydrates

Which of the following is the most useful information to obtain when completing a health history on an eighty-year-old man?

a) Functional ability
b) Current health promotion behavior **
c) Childhood illness
d) General health for the past 20 years
General Guidelines for Multiple-Choice Exams

- Begin studying early. Multiple-choice exams tend to cover a broad range of material and focus on detail. Learn a little bit every day and allow time for a final review.

- Practice writing multiple-choice questions related to this course content. Questions can often be found in related textbooks, lab manuals, CD’s and even on websites.

- Before beginning the exam, relax by taking a few deep breathes and talk positively to yourself. Fill out your answer card ensuring that the number on the card corresponds with the number on the exam paper.

- Use the 5 Step Process for all questions!!! (Cover options, read stem, picture in head, uncover, match)
  - Remember to watch for those key words and phrases such as only, best, first.
  - Ensure you understand what is being asked in the stem by rephrasing the question in your own words.

- The results of changing the answers to questions is controversial. Sometimes you may find that you suddenly remember the right answer, and if so, an answer change is appropriate. However, changing exam answers may not be a good idea if you are making the change simply on “guess work”. Research has shown that in many cases, the first answer that pops to mind is often the correct one. Trust your intuition.

- If you don’t know the answer, don’t waste time on the question. Put a question mark in the margin and move on. Return to the marked item when you have completed the exam.

- If you do poorly in an exam, be sure to see your instructor as soon as possible after receiving your mark to discuss why this has happened. There are many reasons for failing an exam and this type of feedback will help you identify the cause of your failure. For example; did you read the questing wrong, make careless errors, didn’t know the material, run out of time or become overly anxious?

GOOD LUCK
Resources


Web Resources

1. The University of Calgary’s Test-Taking Advice: Especially for the Multiple-Choice Challenged  
   [www.ucalgary.ca/counselling/academicsuccess/study_exam_skills](http://www.ucalgary.ca/counselling/academicsuccess/study_exam_skills)

2. The University of Toronto’s Suggestions for Coping with Multiple-Choice Questions  
   [www.asc.utoronto.ca/publications/multiple-choice-test-writing.htm](http://www.asc.utoronto.ca/publications/multiple-choice-test-writing.htm)

3. The University of Guelph’s Suggestions for Multiple-Choice Exams  
   [www.lib.uoguelph.ca/assistance/learning_services/handouts/multiple_choice_exams.cfm](http://www.lib.uoguelph.ca/assistance/learning_services/handouts/multiple_choice_exams.cfm)