Secrets of Competency Testing: Writing Items for Hospice and Palliative Certification Examinations

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The planning committee members and the presenters have declared no conflict of interest involved in the content contained in this course.

# AGENDA

Part I

- I. Overview of Measurement
- II. Item Anatomy and Item Types
- III. Cognitive Levels
  - Part II
- IV. Subverting Test Wiseness
- V. General Rules for Item Writing Part III
- VI. Item Writing and Feedback

**Overview of Measurement** 

Job Analysis Test Specifications Item Writing Examination Development Standard Setting Administration and Scoring

## Job Analysis

- Also called a Role Delineation Study
- Purpose: to identify practice
- Upholds standards of testing
- Conducted by Advisory Committee
- Survey distributed to national sample
- Results show importance of tasks

# **Test Specifications**

- Developed based on judgment:
  - From hundreds of respondents, as interpreted by Advisory Committee
- · Ensures content validity
- Used to build all examinations
- · Provides information to candidates
  - Why is that important?

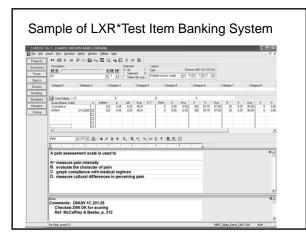
## **Item Writing**

- Training provided through workshop
- All items linked to specifications
- Consistent style and format



# **Examination Development**

- Unanimous agreement of experts
- Comparable examination forms
- Exactly match test specifications
- Extensive review process



# Standard Setting

- · Criterion-referenced
- Definition of borderline candidate
- Use judgments of content experts
- · Consistency through equating
- Passing depends on amount of knowledge displayed, not the ability of other candidates

## Scoring

- Quality control procedures
- Review of item analysis
- Review of candidate comments
- · Final scoring

# Item Anatomy and Item Types

- Multiple Choice WHY?
- · Each measures one unit of content
- Response allows inference about candidate's ability in this content area
- All items linked to outline, which allows inference about job-related competencies

**Item Components** 

- Stem and four Options
- Stem the statement or question to which candidates respond. The stem can also include a chart, table or graphic. The stem should clearly present the central problem or idea.

#### Example Stems

- Direct Question:
- In a terminally ill patient, dysphagia would most likely indicate which of the following?
- Incomplete Statement:
- Dysphagia in a terminally ill patient would most likely indicate
- Novice writers tend to write clearer direct question item types. If you are new to item writing, it is best to concentrate on that type.

# The four options will include:

• One key

- The key is the best or most appropriate of the *available* options
- Three distractors
- Plausible, yet incorrect responses or completions
- Why four options?

# Negatively worded item stems

- Should be avoided
- · Try to rewrite as positively worded
- Can cause measurement error when able candidates become confused

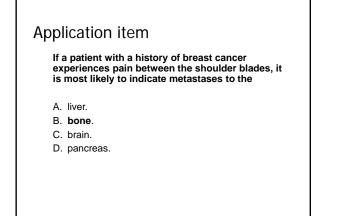
# **Cognitive Levels**

- Recall
  - An effort of rote memorization
  - Never situationally dependent
- Application
  - Interpretation, classification, translation, recognition of elements and relationships
- Analysis
  - Synthesize information, solve problems, evaluate the best response

## Recall item

The authority to make decisions regarding a patient's care ultimately rests with the

- A. patient/family.
- B. attending physician.
- C. interdisciplinary team.
- D. hospice medical director.



#### Analysis item

A certification examination shows a reliability index of .45. One-half of the items have p values greater than .90, and 15% have negative pointbiserial correlations. The psychometrician should recommend that the committee write

- A. longer, more difficult to read items that are more clearly job-related.
- B. easier items, focusing on basic facts.
- C. more difficult items, with better distractors.
- D. stems requiring complex computations.

# How to write items to test higher cognitive levels

- Develop an evaluative objective
- Think about job-related situations
- Expand on opportunities (problems) that have occurred



