Best Practices for Test Item Writing

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Student Learning Outcomes

• Importance of weekly SLOs
  • Guide the delivery of instruction (method)
  • Direct learning activities
  • Direct assessment/evaluation method

TEST PLANS/BLUEPRINTS

• Directs test construction
• Provides evidence of measurement validity
• Focus on test content topics and competencies!
TEST PLANS/BLUEPRINTS (Cont’d)

• Nursing BPs located on www.ncsbn.org
• 2016 NCLEX-RN® Detailed Test Plan (Educator)
• 2017 NCLEX-PN® Detailed Test Plan (Educator)

NCLEX-RN® INTEGRATED PROCESSES

• Nursing process
• Caring
• Communication and documentation
• Teaching and learning
• Culture and spirituality (NEW!!!!)

NCLEX-RN® CLIENT NEEDS

• Safe, effective care environment (Management/Coordination of care)
• Health promotion and maintenance
NCLEX-RN® CLIENT NEEDS (Cont’d)

• Psychosocial integrity
• Physiological integrity
  (Pharmacological therapies [also parenteral therapies for RN]; Reduction of risk potential)

COMPONENTS OF TEST PLAN (See handout)

• Student learning outcomes (most important factor in test writing!)
• Tests should focus on concepts and align with test plans, such as nursing role in promoting mobility, assessing oxygenation.

COMPONENTS OF TEST PLAN

• Specifies cognitive level—
  1. Remembering (knowledge) is the lowest level, involves regurgitation of facts and information
COMPONENTS OF TEST PLAN (cont’d)

2) Understanding (Comprehension) tests for recollection of facts, principles, theories, or procedures (only one) to answer question.

COMPONENTS OF TEST PLAN (cont’d)

3) Applying (application) and higher (analyzing, evaluating, and creating)

Requires student to critically think to make clinical decisions using clinical judgment!!!

* Student is asked to apply knowledge from at least two areas or concepts to a specific clinical situation

SAMPLE TEST ITEM

A client with chronic bronchitis is admitted to the unit. The nurse knows that this disease is usually caused by:
A. Smog
B. Smoking
C. Coal dust
D. Alcohol use

SLO = Identify risk factors for chronic bronchitis.
SAMPLE TEST ITEM

The nurse prepares to give heparin subcutaneously. The nurse knows that this drug in what classification?
A. Antibiotic
B. Antifungal
C. Anticoagulant
D. Antidiuretic

SLO = Identify drugs that are common anticoagulants.

SAMPLE TEST ITEM

The nurse is teaching a new diabetic client about foot care. Which statement by the client indicates a need for further teaching?
A. “I will wash and dry my feet every day.”
B. “I will use lotion every day to prevent dryness.”
C. “It’s OK for me to walk barefooted this summer.”
D. “I will inspect my feet carefully every day.”

SLO = Evaluate the effectiveness of health teaching about impaired perfusion associated with diabetes.

What cognitive level?

When the nurse walks into the room, the client throws a tray towards the nurse. What behavior does this represent?
A. Assault
B. Battery
C. Libel
D. Slander
A client who had an open reduction of the tibia reports increased pain, swelling, and numbness in the affected leg. What action will the nurse take first?
A. Administer pain medication.
B. Call the surgeon immediately.
C. Elevate the affected leg.
D. Perform a neurovascular assessment.

What is the SLO? What is the concept?

The nurse is caring for a client with Cushing's syndrome. What assessment findings will the nurse expect? Select all that apply.
A. Buffalo hump
B. Truncal obesity
C. Clavicular fat pads
D. Abdominal striae
E. Ecchymosis

What is the SLO? What is the concept?

COMPONENTS OF NURSING TEST PLAN

• Includes of the integrated processes (IP)
• Is based on the NCLEX test plan for client needs categories (CN)
Developing Test Policies/Guidelines

• Include cognitive plan for nursing courses:
  • % of Non-CT/CJ items (R/U)
  • % of CT/CJ items (A and >)
  • Example: 1st nursing course 50%/50%; by last course 5%/95%
TIPS FOR WRITING EFFECTIVE TEST ITEMS

• Be sure that item cognitive level is aligned with weekly/class SLO.
• Keep all choices, including wrong answers (distracters) viable and about same length.
• Keep choices distinct and discrete, and not too similar.

TIPS FOR WRITING EFFECTIVE TEST ITEMS

• Don’t use serial terms in each choice; e.g., “tachycardia, hypotension, diaphoresis,” etc. Instead make that test item a multiple response item.
• Don’t use negative approach (e.g., except, but...)

TIPS (cont’d)

• Present choices in a logical manner.
• Do not use “all of the above” or “none of the above.”
• Be culturally competent!!!
Questions?
**EXAMPLE OF TEST BLUEPRINT**  
**NURSING 320**  
**UNIT 4 EXAM**

<table>
<thead>
<tr>
<th>ITEM #</th>
<th>CO/SLO</th>
<th>CL</th>
<th>IP</th>
<th>CN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>A</td>
<td>NP (I)</td>
<td>Phy</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>U</td>
<td>TL</td>
<td>HP</td>
</tr>
</tbody>
</table>

**KEY:**

- **CO/SLO** = Class Objective/Student Learning Outcome  
- **CL** = Cognitive Level (R, U, A or >)  
- **NP** = Nursing Process Step (A, An, P, I, E)  
- **IP** = Caring (Ca), Teaching (TL), Communication (Co)  
- **CN** = Client Need (Phy, PS, HP, S)
How to Determine if a Nursing Test Item is Written at the Applying Level or Above

1. Read test item.

2. Does the question involve both a nurse and a patient/staff?
   - Yes: The question MAY be written at the application level or higher.
   - No: Revise question.

3. Does the question ask the nurse to make a clinical/nursing decision?
   - No: The question IS likely written at the application level or above.
   - Yes: Does the question ask the nurse to apply two or more concepts or principles?
     - Yes: The question is likely written at the application level or above.
     - No: Revise question.

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