



Guide

# Writing Next Generation NCLEX<sup>®</sup> Item Types

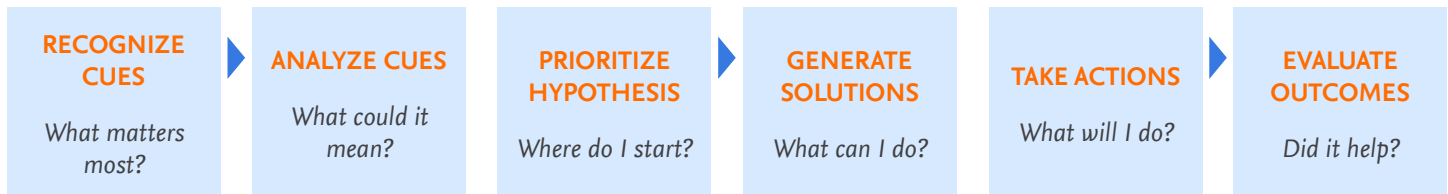


# Steps to Writing NGN Test Items

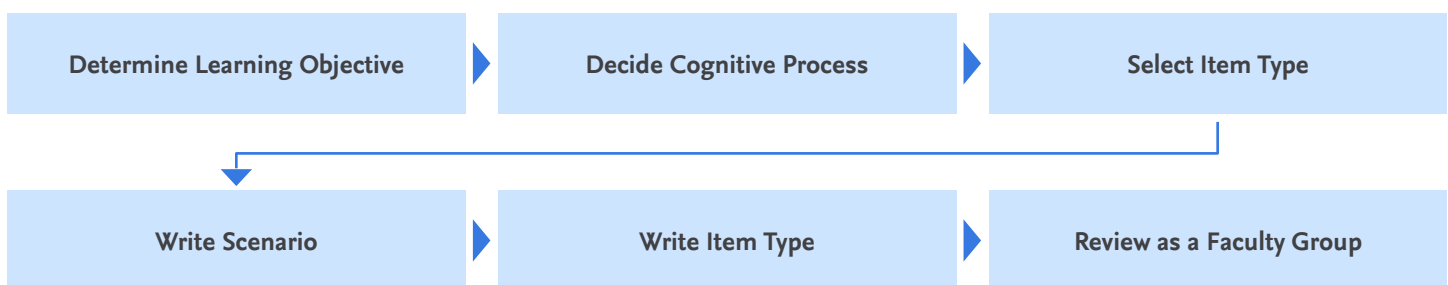


## STEPS TO WRITING NGN TEST ITEMS

1. Determine the learning objective you are evaluating.
2. Decide which clinical judgment cognitive process from Layer 3 your item type will focus on.



3. Select your NGN item type ([see “Selecting the Appropriate Item Type” table on page 3](#)).
4. Write the scenario and the NGN test item (see directions for each item type).
  - Suggestions for assessment instructions (item stems) are given and should be in bold so the student can easily identify.
  - Client EMR tabs can include the following:
    - History and physical
    - Orders
    - Nurses’ notes
    - Flow sheet
    - Laboratory results
    - Imaging studies
5. Review the question as a faculty group.



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# Selecting and Writing the NGN Item Types



## SELECTING THE APPROPRIATE ITEM TYPE

	<b>Drag and Drop (DND)</b> DND Cloze DND Rationale	<b>Drop-Down (DD)</b> DD Cloze DD Rationale DD Table	<b>Highlight (HI)</b> HI Table HI Text	<b>Multiple Choice (MC)</b> Matrix MC MC	<b>Multiple Response (MR)</b> Matrix MR MR Grouping MR Select All MR Select N
Recognize Cues	Optimal	Optimal	Optimal	Acceptable	Optimal
Analyze Cues	Optimal	Optimal	Acceptable	Optimal	Optimal
Prioritize Hypothesis	Optimal	Optimal	Acceptable	Do Not Use	Optimal
Generate Solutions	Optimal	Acceptable	Acceptable	Optimal	Optimal
Take Action	Optimal	Optimal	Acceptable	Optimal	Optimal
Evaluate Outcomes	Optimal	Acceptable	Optimal	Optimal	Optimal

## WRITING NGN ITEM TYPES



### Drag-and-Drop Cloze

Functionality	Assessment Instructions
<ul style="list-style-type: none"> <li>4-10 tokens (word choices)</li> <li>1-5 sentences</li> <li>1 or more response targets to drag a token to</li> </ul>	<b>Drag from Word Choices to complete the sentence.</b>

### Example of a Drag-and-Drop Cloze

The nurse reviews the client admission data.

**Drag from Word Choices to complete the sentence.**

The client is at risk for developing , , and

Word Choices

# Writing NGN Item Types



## Drag-and-Drop Rationale

### Functionality

- 1 sentence with 1 cause & 1 effect (dyad) OR 1 sentence with 1 cause and 2 effects (triad)

### Assessment Instructions

Drag from Word Choices to complete the sentence.

### Example of a Drag-and-Drop Rationale

An assessment was performed on the client and orders were written.

**Drag one condition and one client finding to complete the sentence.**

The client appears to have  based on the client findings of

Condition	Client Finding
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>



## Drop-Down Cloze

### Functionality

- Includes a paragraph of information with 1 or more drop-down options from which to complete the paragraph
- 1-5 sentences
- 3-5 options in each drop-down

### Assessment Instructions

Choose the most likely options for the information missing from the statement(s) by selecting from the lists of options provided.

### Example of a Drop-Down Cloze

An assessment finding that requires immediate follow-up by the nurse is

Select Response ▼

Select Response



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# Writing NGN Item Types



## ↓ Drop-Down Rationale

### Functionality

- Item includes 1 sentence with 1 cause & 1 effect (dyad) OR 1 sentence with 1 cause & 2 effects (triad)
- 3-5 options per drop-down

### Assessment Instructions

Choose the most likely options for the information missing from the statement(s) by selecting from the lists of options provided.

### Example of a Drop-Down Rationale

The nurse anticipates the healthcare provider will discontinue and provides client education about this medication change.

Select Response ▼	to	Select Response ▼
Select Response		Select Response



## ↓ Drop-Down Table

### Functionality

- A table of information with drop-down options in different parts of the table
- Minimum of 1 column with 3 rows

### Assessment Instructions

Choose the most likely options for the missing information by selecting from the lists of options provided.

### Example of a Drop-Down Table

Choose the most likely options for the missing information by selecting from the lists of options provided.

Medication	Dose, Route, Frequency	Drug Class	Indication
Select ▼			
	Select ▼		
			Select ▼
		Select ▼	



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# Writing NGN Item Types



## Highlight Table

### Functionality

- Maximum of 10 options
- Responses are tokenized

### Assessment Instructions

Click to highlight findings that \_\_\_\_\_.

## Example of a Highlight Table

Click to highlight the laboratory results in the table consistent with severely reduced kidney function.

Laboratory Test	Result	Reference Range



## Highlight Text

### Functionality

- Maximum of 10 options
- Responses are tokenized

### Tip

Phrases (tokens) are highlighted by the student within a paragraph

### Assessment Instructions

Click to highlight findings that \_\_\_\_\_.

Continued »



# Writing NGN Item Types



## Matrix Multiple Choice

Functionality	Tip	Assessment Instructions
<ul style="list-style-type: none"><li>4-10 rows</li><li>2-3 columns</li><li>Each row must have 1 response option selected</li></ul>	Think of each row as a multiple-choice answer	Based on the finding of _____, indicate _____ (whether or not the client is at risk for the listed condition, whether or not the nursing action is appropriate, whether or not the nursing intervention is effective).

### Example of a Matrix Multiple Choice

The nurse is generating a plan of care for the client based on treatment options that have been discussed.

Click to indicate which intervention the nurse identifies as indicated or contraindicated for the plan of care to support the expected outcome of maximizing quality of life at this time.

Each row must have only one response option selected.

Intervention	Indicated for Plan of Care	Contraindicated for Plan of Care
	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>



## Multiple Choice

Functionality	Assessment Instructions
<ul style="list-style-type: none"><li>A multiple-choice test item is written with a focus on the corresponding cognitive process of clinical judgment.</li></ul>	Specific NGN assessment instructions are not required for a NGN multiple-choice question.



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# Writing NGN Item Types



## Matrix Multiple Response

Functionality	Assessment Instructions	Heading Suggestions
<ul style="list-style-type: none"><li>• 4-7 rows</li><li>• 2-10 columns</li><li>• Each row must have at least 1 response option selected and can have multiple correct responses</li></ul>	<p><b>Click to indicate _____</b> (description based on what the student needs to identify for that question). Each row must have only one response option selected OR can have multiple responses.</p>	<p><b>Recognize Cues:</b></p> <ul style="list-style-type: none"><li>• Expected, requires follow-up by the nurse</li></ul> <p><b>Analyze Cues:</b></p> <ul style="list-style-type: none"><li>• Sign of potential improvement, sign of potential worsening condition, unrelated to diagnosis</li><li>• Problem (name the problem)</li></ul> <p><b>Prioritize Hypotheses:</b></p> <ul style="list-style-type: none"><li>• Most important, least important</li></ul> <p><b>Generate Solutions:</b></p> <ul style="list-style-type: none"><li>• Priority intervention, appropriate intervention, contraindicated</li></ul>

## Example of a Matrix Multiple Response

Click to indicate the problem the client is experiencing based on the associated clinical manifestation.

Each row can have multiple responses.

Clinical Manifestation	Problem #1	Problem #2	Problem #3
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



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# Writing NGN Item Types



## Multiple Response Select All That Apply

Functionality	Assessment Instructions
<ul style="list-style-type: none"><li>• 5 to 10 options</li><li>• There may be only 1 correct response or multiple correct responses. All 10 could be correct.</li></ul>	<b>Select all that apply.</b>

### Example of a Multiple Response Select All That Apply

The nurse considers priority hypotheses based on admission data and laboratory results.

Which finding supports the fact that this client has impaired glucose tolerance? **Select all that apply.**

- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_



## Multiple Response Select N

Functionality	Assessment Instructions
<ul style="list-style-type: none"><li>• The student may not select all but is limited to a certain number of responses.</li><li>• The required number to select is based on the keys.</li><li>• The student can select less than the stated number of keys, but they must select at least 1.</li></ul>	<b>Select the _____ (number) findings that require follow-up.</b>

Continued »



# Writing NGN Item Types



## Example of a Multiple Response Select N

The nurse considers priority hypotheses based on admission data and laboratory results.

Select the 3 findings that support the fact that this client has impaired perfusion.

- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_
- ☐ \_\_\_\_\_



### Multiple Response Grouping

#### Functionality

- The table has 2 to 5 groupings.
- Each grouping has 2 to 4 options.
- The number of options is the same for all groupings.
- Students must select at least one option from each grouping.

#### Assessment Instructions

Each \_\_\_\_\_ (heading of first column) may support more than one \_\_\_\_\_ (heading of second column). Each category must have at least one option selected.

## Example of a Multiple Response Grouping

For each client need, click to specify the potential nursing intervention that would be appropriate for the care of the client.

Each client need may support more than one potential nursing intervention. Each category must have at least one response option selected.

Client Need	Potential Nursing Intervention
	<input type="radio"/> <input type="radio"/> <input type="radio"/>
	<input type="radio"/> <input type="radio"/> <input type="radio"/>
	<input type="radio"/> <input type="radio"/> <input type="radio"/>
	<input type="radio"/> <input type="radio"/> <input type="radio"/>



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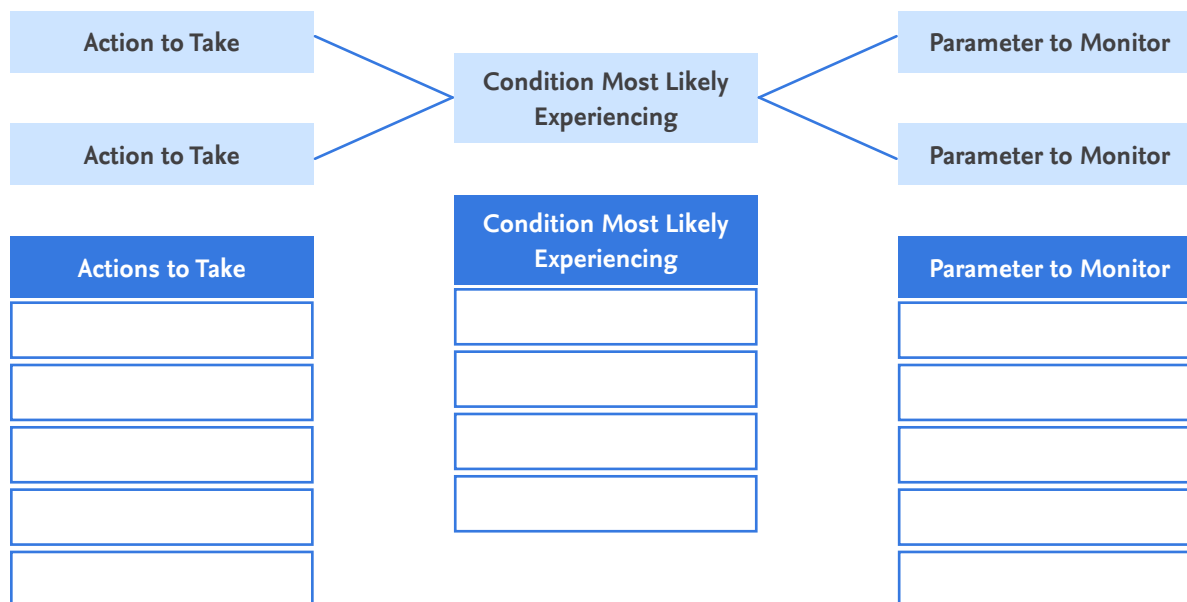
# Writing NGN Item Types



## Bowtie (Stand-Alone)

Cognitive Process	Functionality	Assessment Instructions
<ul style="list-style-type: none"> <li>Can address all 6 steps of Layer 3 in 1 item</li> <li>The NCSBN is currently only using the categories illustrated in the diagram</li> </ul>	<ul style="list-style-type: none"> <li>Item responses fall into 3 categories</li> <li>Column headers can be edited to address content tested</li> <li>5 options in left &amp; right wells; 4 options in middle well</li> <li>Left, right, &amp; middle options can only be used for that corresponding drag-and-drop area</li> </ul>	<p>Complete the diagram by dragging from the choices area to specify which condition the client is most likely experiencing, two actions the nurse should take to address that condition, and two parameters the nurse should monitor to assess the client's progress.</p>

### Example of a Bowtie



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# Writing NGN Item Types



## Trend (Stand-alone)

Cognitive Process	Functionality	Tip
Addresses multiple steps of Layer 3 by having the student review information over time	Features any item response type	Include a flow sheet or nurses' notes with data that changes over time. Note the dates and times in the patient data.

## REFERENCES

- Ignatavicius, D. (2021). *Developing clinical judgment for professional nursing and the Next-Generation NCLEX-RN® examination*. Elsevier.
- Ignatavicius, D. (2021). *Book-organized: Ignatavicius medical-surgical nursing – Sherpath for medical-surgical nursing* (10th ed.). [Course management system]. Elsevier.

*This guide to NGN test item writing was compiled and developed by Carolyn Kerns, MS, RN, FNP, CNE, Nursing Education Specialist, Elsevier.*



History  
and  
Physical

Orders

Nurses'  
Notes

Flow Sheet

Laboratory  
Results

Imaging  
Studies

History  
and  
Physical

Orders

Nurses'  
Notes

Flow Sheet

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