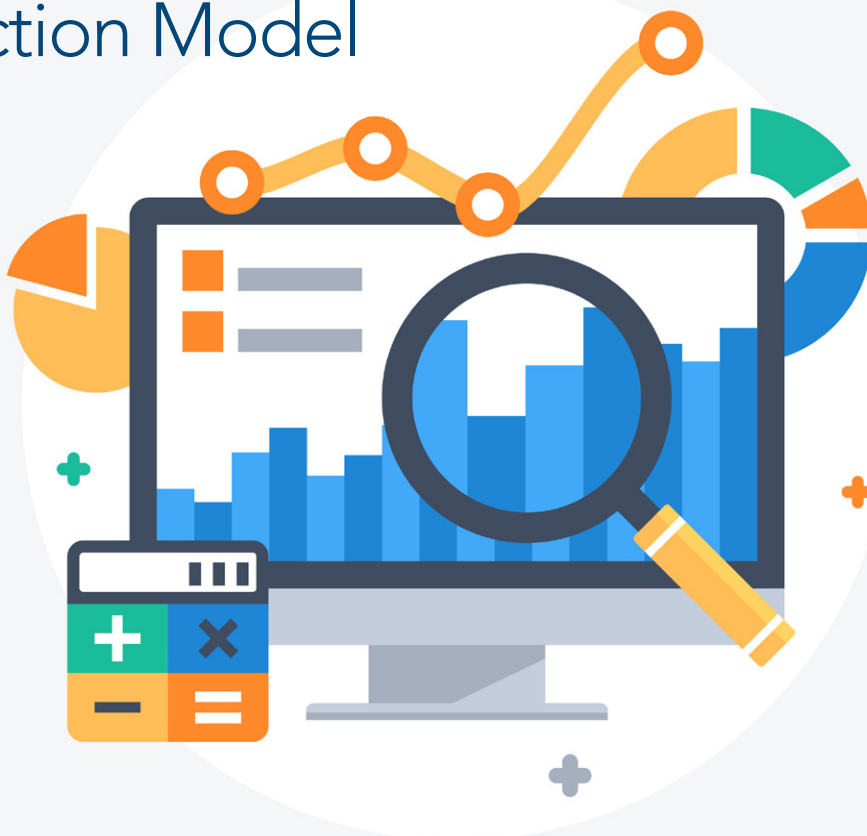


# Next Generation NCLEX® NEWS

## Clinical Judgment Measurement Model and Action Model

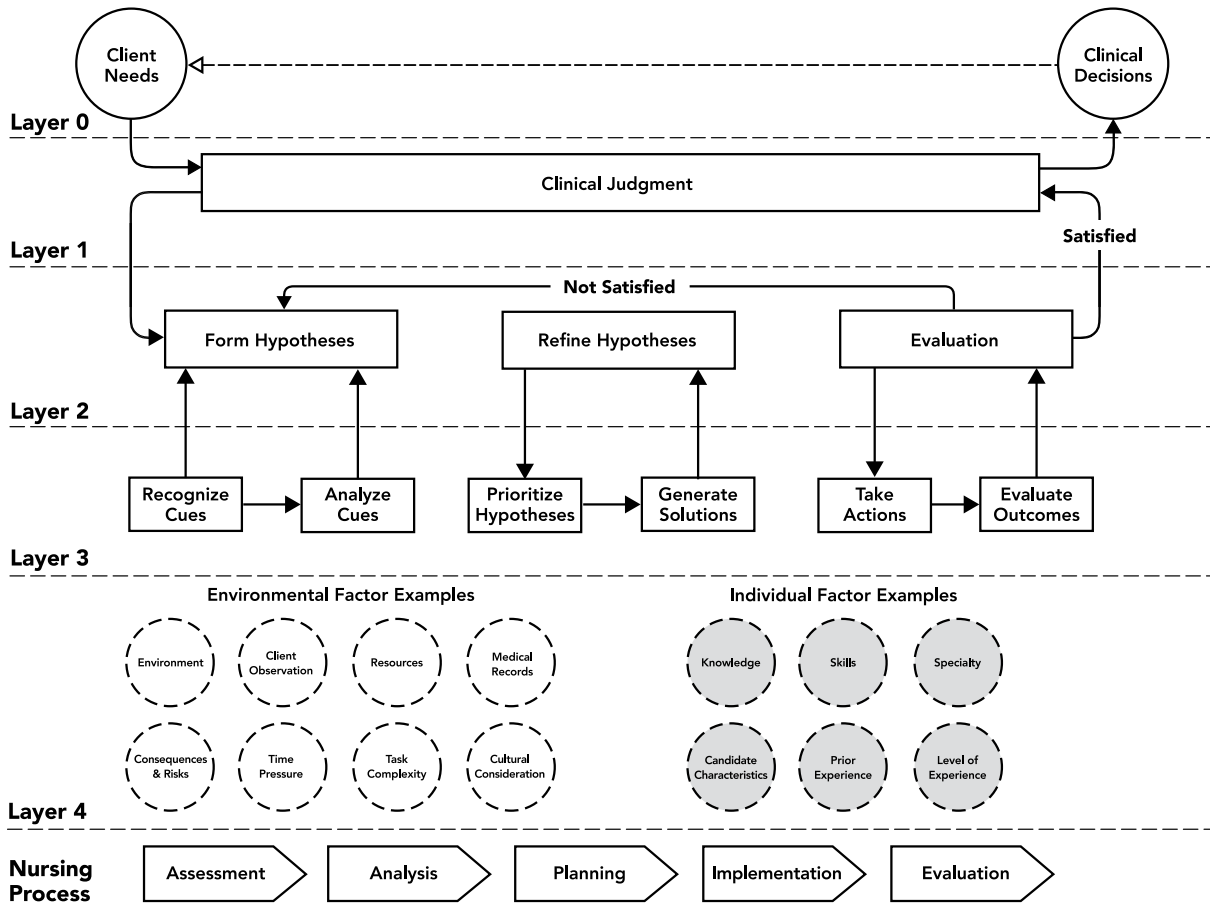


The Next Generation NCLEX® News is a quarterly publication that provides the latest information about the research being done to assess potential changes to the NCLEX Examinations.

The nursing clinical judgment research conducted by NCSBN resulted in the creation of the Clinical Judgment Measurement Model (CJMM). The CJMM was designed to explore new ways of testing clinical judgment in the nursing profession as part of the licensure examination. Subsequently, an action model to incorporate specific concepts of the CJMM was required in order to close the gap between what is measured on the exam and what is taught in clinical nursing education.

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**Figure 1: The NCSBN Clinical Judgment Measurement Model**



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To have a better understanding of the action model, it is important to know how the CJMM relates to the nursing profession. Layers 3 and 4 of the CJMM delineate the cognitive process of how a nurse makes decisions for layer 2. Based on the client's response from layer 2, either satisfactory or unsatisfactory, the nurse can move through the entire cognitive processes of layers 3 and 4 again. The entirety of nursing clinical judgment in layer 1 subsequently impacts the clinical decision for the client's needs at layer 0.

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Layer 3 of the CJMM is essential when considering testing and education of how entry-level nurses develop clinical judgment over time. The six steps of layer 3 comprise a repetitious process that improves over time with continued nursing experience and clinical exposure. In the beginning of a nurse's career, this is more systematic and deliberate. However, as a nurse gains clinical experience, the steps occur more promptly and become second nature.

The addition of the individual and environmental factors in layer 4 creates a realistic client scenario. Together, layers 3 and 4 of the CJMM help determine expected behaviors of a clinical situation or case scenario. These expected behaviors determine if a nurse is able to make an appropriate clinical decision.

One specific feature of this conceptual CJMM is that, in addition to the psychometric and testing framework concerned with creating item consistency, layers 3 and 4 can be constructed in a format to be used as an education tool in nursing called an action model. A pediatric example using the action model is shown in [Figure 2](#) (Dickison, Haerling & Lasater, 2019).

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**Figure 2: Hypothetical Action Model in the Pediatric Setting**

<b>Cognitive Operations</b> (NCSBN CJMM Layer 3)	<b>Factor Conditioning</b> (NCSBN CJMM Layer 4)	<b>Expected Behaviors/Actions</b>
<b>Recognize Cues</b>	<b>Environmental cues:</b> <ul style="list-style-type: none"> <li>• Location: Emergency Department</li> <li>• Parent present</li> </ul>	<ul style="list-style-type: none"> <li>• Recognize signs/symptoms of dehydration</li> <li>• Identify history of diabetes</li> <li>• Recognize abnormal vital signs</li> <li>• Hypothesize dehydration</li> <li>• Hypothesize diabetes</li> </ul>
	<b>Client observation cues:</b> <ul style="list-style-type: none"> <li>• Present age: 8-10 years</li> <li>• Present: signs/symptoms of dehydration: dry mucous membranes, cool extremities, capillary refill 3-4 seconds</li> <li>• Present/imply: lethargy</li> </ul>	
	<b>Medical record cues:</b> <ul style="list-style-type: none"> <li>• Present/imply: Hx of diabetes</li> <li>• Present/imply: Vital signs</li> </ul>	
	<b>Time pressure cues:</b> <ul style="list-style-type: none"> <li>• Set time pressure to vary with onset/acuity of symptoms</li> </ul>	
<b>Analyze Cues</b>	<ul style="list-style-type: none"> <li>• Requires knowledge of pediatric development</li> <li>• Requires knowledge of dehydration symptoms</li> <li>• Requires knowledge of diabetes symptoms</li> </ul>	<ul style="list-style-type: none"> <li>• Describe relationship between level of blood sugar and dehydration</li> <li>• Use evidence to determine client issues</li> </ul>

Dickison, Haerling & Lasater, 2019

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## Figure 2: Hypothetical Action Model in the Pediatric Setting

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<b>Cognitive Operations</b> (NCSBN CJMM Layer 3)	<b>Factor Conditioning</b> (NCSBN CJMM Layer 4)	<b>Expected Behaviors/Actions</b>
<b>Prioritize Hypotheses</b>	<ul style="list-style-type: none"> <li>• Give vital sign monitors as resources</li> <li>• Set time pressure to vary with vital signs</li> </ul>	<ul style="list-style-type: none"> <li>• Prioritize dehydration</li> <li>• Address dehydration</li> <li>• Avoid glucose</li> </ul>
<b>Generate Solutions</b>	<ul style="list-style-type: none"> <li>• Requires knowledge of pediatric developmentally appropriate approach</li> <li>• Requires knowledge of dehydration treatment and intervention</li> <li>• Requires knowledge of diabetes treatment and intervention</li> </ul>	
<b>Take Actions</b>	<b>Experience:</b> <ul style="list-style-type: none"> <li>• Requires experience of administering isotonic fluid</li> </ul>	<ul style="list-style-type: none"> <li>• Administer isotonic fluid</li> </ul>
<b>Evaluate Outcomes</b>	<b>Experience:</b> <ul style="list-style-type: none"> <li>• Requires experience of administering isotonic fluid</li> </ul> <b>Client observation cues:</b> <ul style="list-style-type: none"> <li>• Show client awake and talking</li> <li>• Imply improvement in vital signs based on actions</li> </ul>	<ul style="list-style-type: none"> <li>• Reassess vital signs</li> <li>• Reassess lethargy</li> </ul>

Dickison, Haerling & Lasater, 2019

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The action model is a useful tool to define the parts of the CJMM and expected behaviors the nursing student needs to know and perform. It allows educators to determine which areas of the clinical decision-making process a nursing student has a solid foundation of understanding as well as areas that need improvement.

In the example on pages 4–5 ([see Figure 2](#)) the cognitive operations are each step of layer 3 in the CJMM. The factor conditioning uses the environmental and individual contextual factors of layer 4 to determine what else is needed for the clinical scenario. For the educator to determine the important expected behaviors from this pediatric clinical scenario, the action model can be used as a tool to help their nursing students learn and develop clinical judgment skills more effectively before becoming licensed to practice.

In addition, it can serve as a reference for educators to create their own test items. The action model's consistent structure helps to measure individual steps of clinical judgment and still create a realistic, complex clinical scenario. It is constructed to be able to represent any relevant clinical scenario that an entry-level nurse may encounter. The benefit of the action model is that it blends clinical skills with textbook knowledge in a way that can be succinct, measurable and easily reproduced.

#### References

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Dickison, P., Haerling, K. & Lasater, K. (2019). *Integrating the National Council State Boards of Nursing-Clinical Judgment Model (NCSBN-CJM) into Nursing Educational Frameworks*. *Journal of Nursing Education* 58(2), 72-8.

Dickison, P., Luo, X., Kim, D., et al. (2016). *Assessing higher-order cognitive constructs by using an information-processing framework*. 17(1), p. 1-19.

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Next Generation NCLEX® News is published by  
**National Council of State Boards of Nursing (NCSBN)**



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