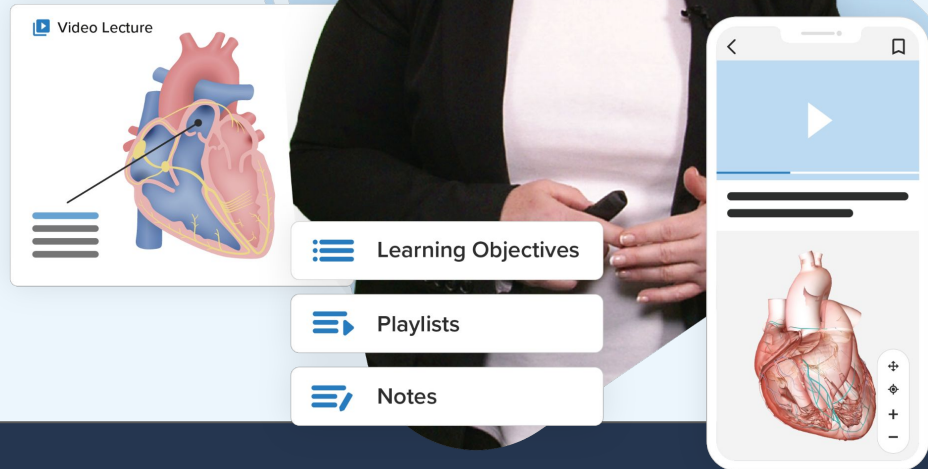


# Essential Approaches for Developing **Clinical Judgement** in Nursing Students

With Prof. Rhonda Lawes  
September 19, 2023



# Webinar Series Host



## Prof. Rhonda Lawes

- Chief Nursing Officer at Lecturio
- Currently teaching in BSN program with emphasis on nursing research and advanced pathophysiology and pharmacology
- Award-winning, certified nurse educator and PhD in educational psychology with over 30 years of experience as a nurse

# Learning outcomes

After this session, participants will be able to:

- 1 **Identify** research-based teaching strategies to prepare students for NGN items, such as the Case Study, Bow-Tie, and Trend
- 2 **Discuss** practical teaching tactics that can be applied in the classroom the very next day
- 3 **Create** individualized plans for integrating new teaching strategies into your curriculum



# Today's Agenda

- 1 Quick Summary of NGN Changes
- 2 Coaching Master Adaptive Learners
- 3 Equipping Students via Scaffolds

# Pass Rates

## Reference pass rates

Program	YTD Pass rates per program / total of all programs
BSN	2022 – 82%
	2021 – 86%
	2020 – 90%
	2019 – 91%
ADN	2022 – 77%
	2021 – 79%
	2020 – 83%
	2019 – 85%





## Question

How have the NGN changes affected your institution's curriculum/lesson delivery?

**Share your thoughts** in the chat



## Question

How have you used bow-tie items in your teaching?

**Share your thoughts** in the chat



# Quick Review of New NGN Formats



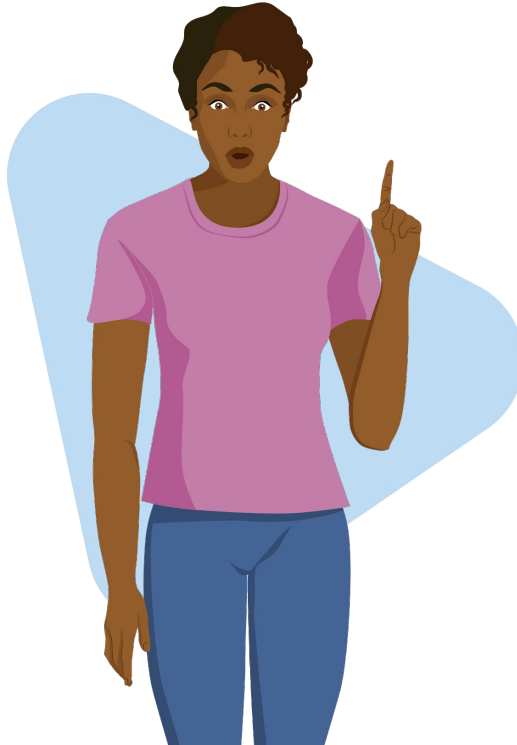
# Item Response Types

What kinds of new items will be on the Next Gen NCLEX®?

- Multiple Choice
- Multiple Response SATA
- Multiple Response Select N

- Bowtie
- Trend (any type)

- Drag & Drop Cloze
- Drag & Drop Rationale
- Drag & Drop Expanded



- Matrix Multiple Response
- Matrix Multiple choice
- Multiple Response Grouping

- Drop Down Cloze
- Drop Down Table
- Drop Down Rationale

- Highlight Text
- Highlight Table

# Item Response Types

What are the kinds of items we need to expect?

	MRSATA MRN MRG MMR	MMC MC	DDC DDR	DdC DdR DdT	HTxT HTbl
Element 1: Recognize Cues	✓		✓	✓	✓
Element 2: Analyze Cues	✓	✓	✓	✓	
Element 3: Prioritize Hypotheses	✓		✓	✓	
Element 4: Generate Solutions	✓	✓	✓		
Element 5: Take Actions	✓	✓	✓	✓	
Element 6: Evaluate Outcomes	✓	✓	✓		✓



## Question

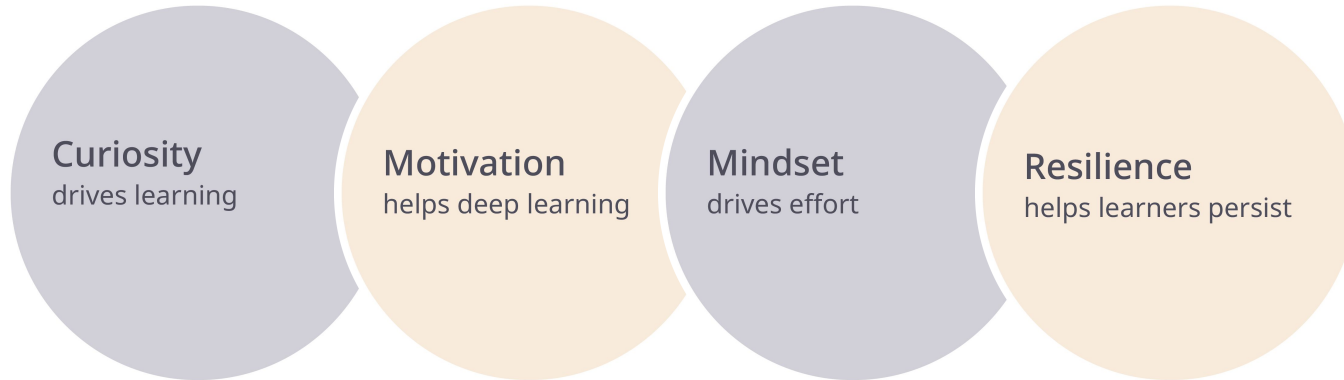
How comfortable are you feeling with the Next Gen format?

**Share your thoughts** in the chat



# Coaching Master Adaptive Learners

# Characteristics





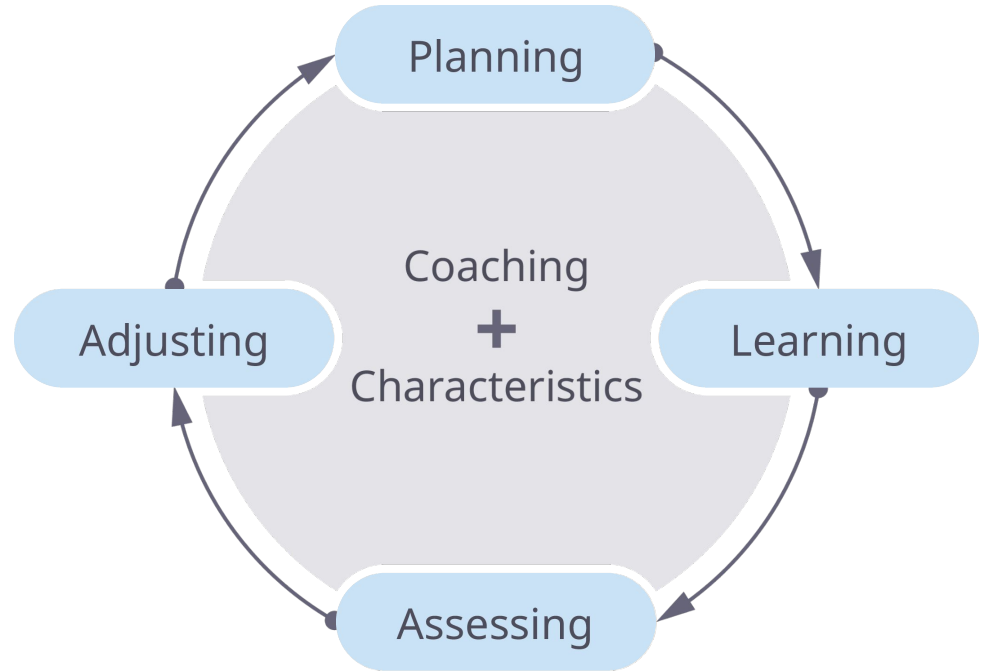
## Question

Which characteristic of Master Adaptive Learners (curiosity, motivation, mindset, resilience) do you think nursing students have the most difficulty with?

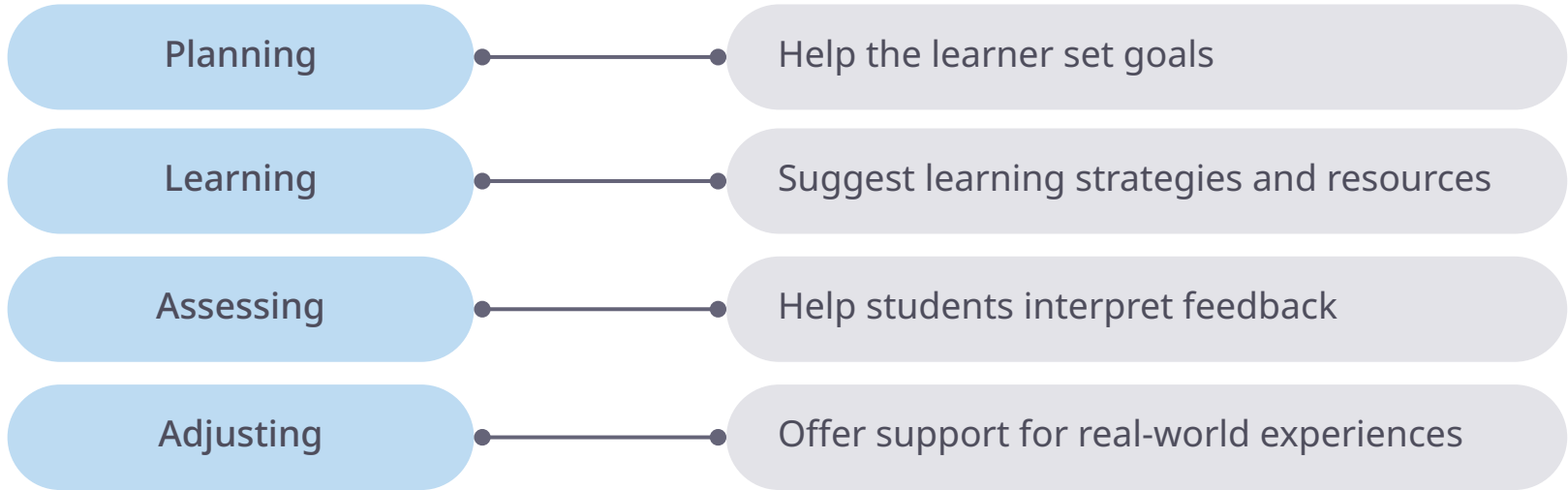
**Explain in 5 words or less** over the chat



# Master Adaptive Learner Model



# Coaching Students to Become Master Adaptive Learners







## Question

In which phase of the MAL model (planning, learning, assessing, adjusting) do you think you as a nursing faculty, in your current practice, are the most effective and why?

**Share your thoughts over** the chat



## Evidence Based Benefits of MAL

Students become practicing nurses who benefit from:

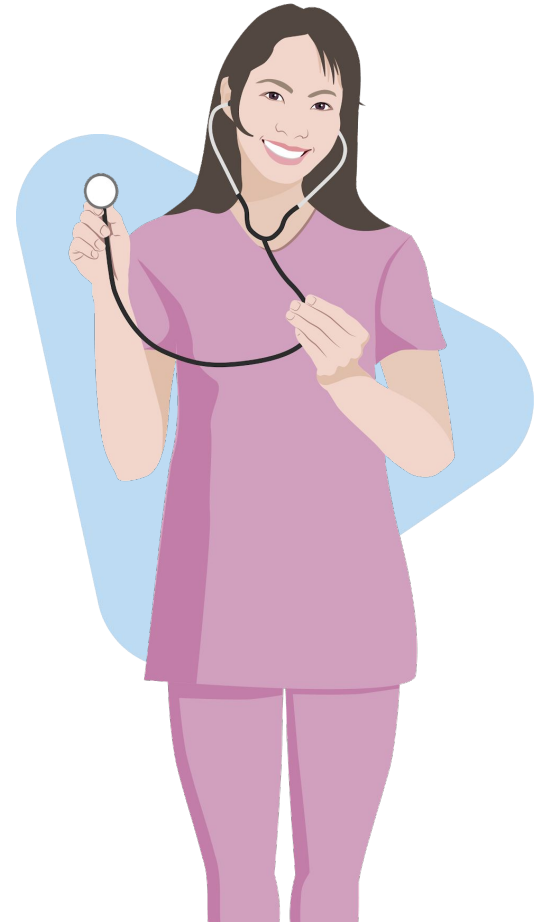
- Having a growth mindset (planning)
- Pursuing lifelong learning opportunities (learning)
- Seeking continuous feedback (assessing)
- Adopt more collaborative, interdisciplinary and innovative approaches to practice (adjusting)

Cutrer WB, Miller B, Pusic MV, Mejicano G, Mangrulkar RS, Gruppen LD, et al. Fostering the Development of Master Adaptive Learners: A Conceptual Model to Guide Skill Acquisition in Medical Education. Acad Med [Internet]. 2017 Jan [cited 2023 Mar 2];92(1):70. Available from: [https://journals.lww.com/academicmedicine/Fulltext/2017/01000/Fostering\\_the\\_Development\\_of\\_Master\\_Adaptive.24.aspx](https://journals.lww.com/academicmedicine/Fulltext/2017/01000/Fostering_the_Development_of_Master_Adaptive.24.aspx)

# A Master Adaptive Learner

## What do they look like?

- Can apply knowledge in new settings
- Can solve problems and innovate
- Is persistent
- Is self-regulated and reflective
- Can critically think through the NCJMM



# Classroom Environment

To support MAL - and CNJMM

- 1 Active learning
- 2 Frequent feedback
- 3 Desirable difficulties
- 4 Proposing complex problems

# Four Strategies for the Classroom

Virtual, In-Person, Synchronous or Asynchronous



- 1 **Emphasize** clinical judgement in curriculum by using formative assessments
- 2 **Incorporate** technology-based learning tools and using scenarios
- 3 **Encourage** critical thinking (Schemas)
- 4 **Enlighten** students on the benefits of active learning (recall, retention, and remediation) (Mastery Adaptive Learning)

# Comparing Nursing Faculty Roles

## MENTORING

- Mentor-led
- Showcases expertise
- Specific to a field or experience
- Provide advice and recommendations

## ADVISING

- Advisor-led
- Focused on academic
- Program-specific
- May have limited learner information

## COACHING

- Student-led
- Help identify personal needs and goals
- Asking vs telling
- Determining personalized paths



# Active Learning with Schemas

The Faculty as a Coach



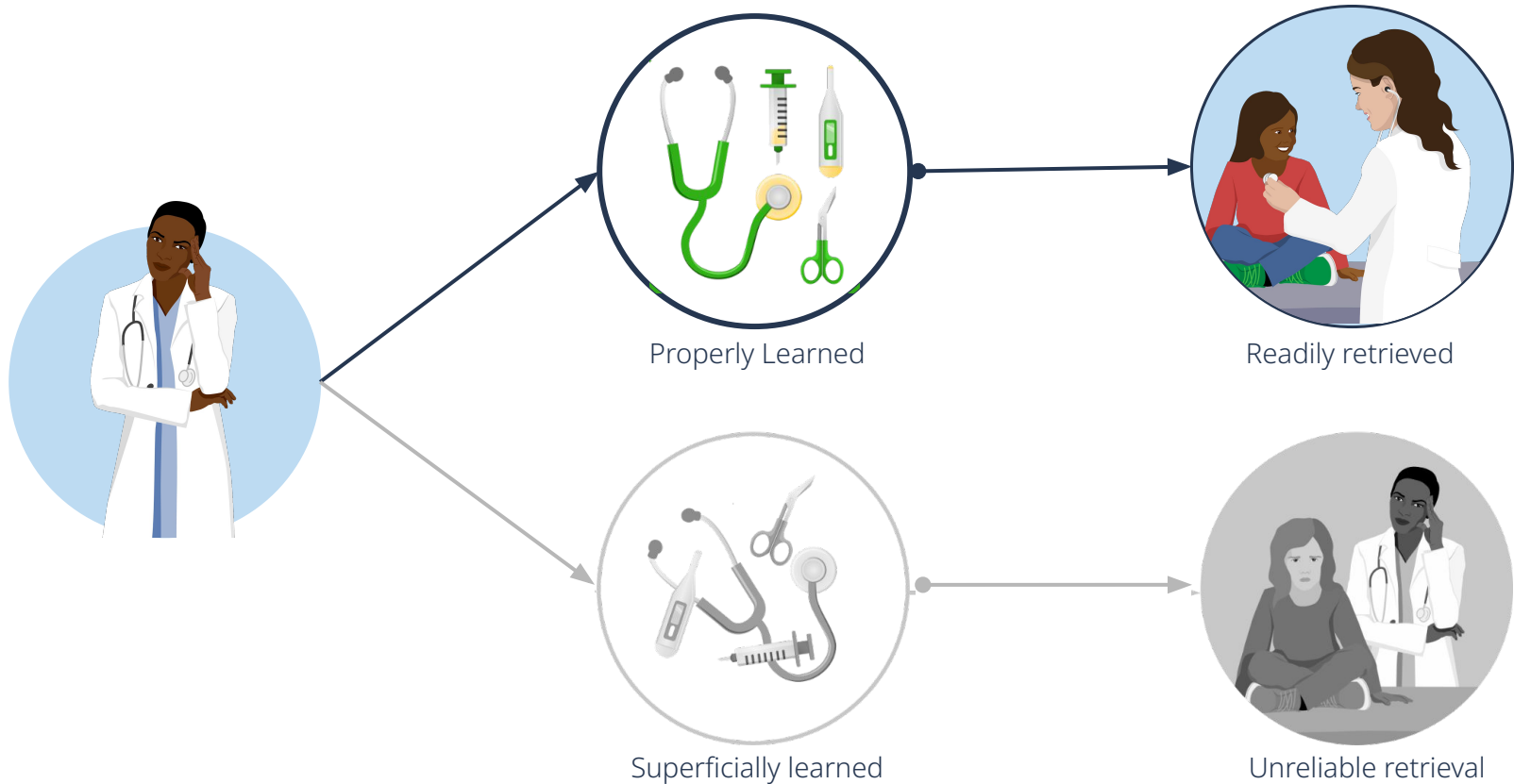
# Effective Learning

Cognitive Capacity,  
Schemas, and Scaffolding



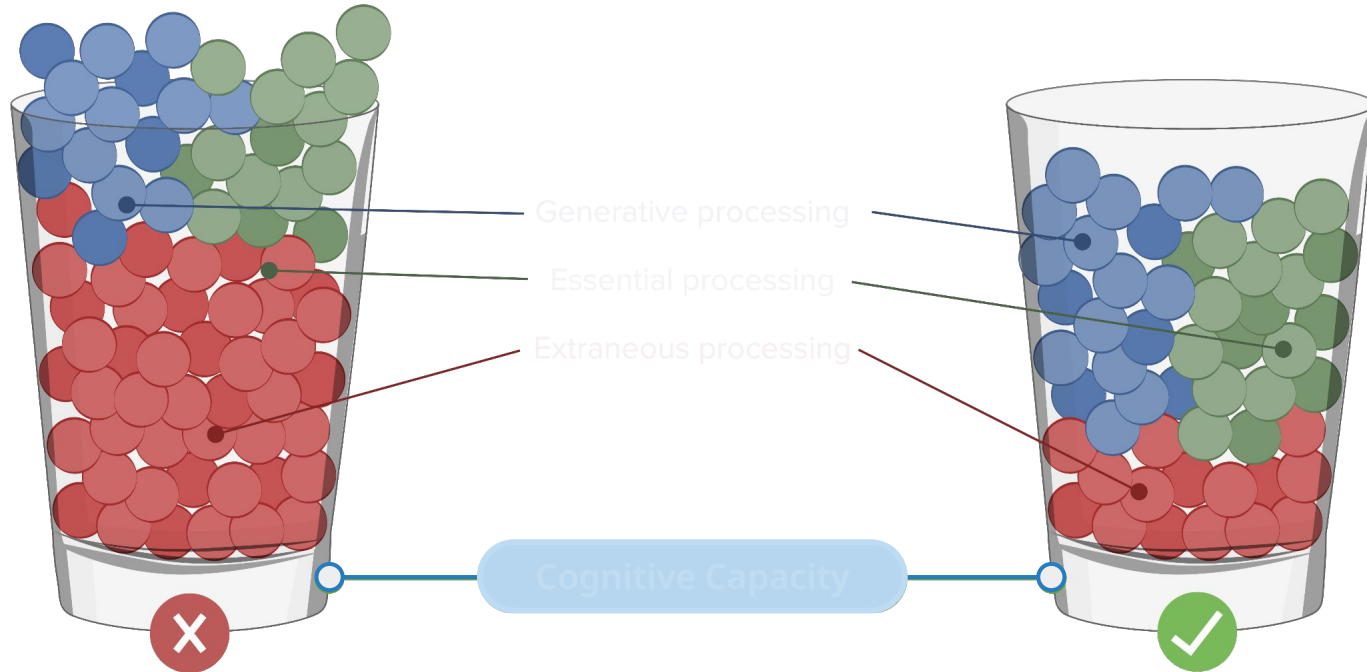
# Efficient vs Inefficient Encoding

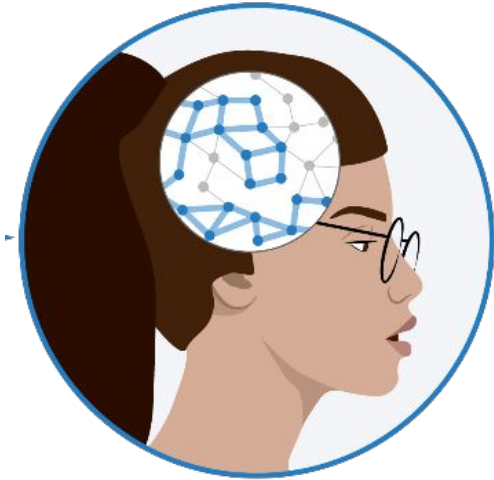
What happens when learning is done poorly



# Cognitive Capacity

Making Effective Instructional Materials and Approaches





## Definition of Schemas

- **Mental models** that organize elements of information based on how they will be processed<sup>1</sup>
- Learners build on and modify schemas when they consume new information<sup>2</sup>
- Very important for student-centered active learning<sup>3</sup>
- Well-developed schemas can lead to easier retrieval of information<sup>1</sup>

---

1. Qiao YQ, Shen J, Liang X, Ding S, Chen FY, Shao L, et al. Using cognitive theory to facilitate medical education. BMC Med Educ [Internet]. 2014 Dec [cited 2022 Nov 14];14(1):79. Available from: <https://bmcmmededuc.biomedcentral.com/articles/10.1186/1472-6920-14-79>

2. Wadsworth, Barry J. Piaget's Theory of Cognitive and Affective Development: Foundations of Constructivism. White Plains, N.Y.: Longman Publishers USA; 1996.

3. Ruiter DJ, van Kesteren MTR, Fernandez G. How to achieve synergy between medical education and cognitive neuroscience? An exercise on prior knowledge in understanding. Adv in Health Sci Educ [Internet]. 2012 May [cited 2022 Nov 14];17(2):225–40. Available from: <http://link.springer.com/10.1007/s10459-010-9244-5>



## Schemas and Nursing Students

- Nursing students who were trained in creating learning schemas showed a significant improvement in their ability to recall and apply new information<sup>1</sup>.
- Use of concept maps to improve nursing students' critical thinking skills<sup>2</sup>
- Using graphic organizers to enhance nursing student's learning<sup>3</sup>

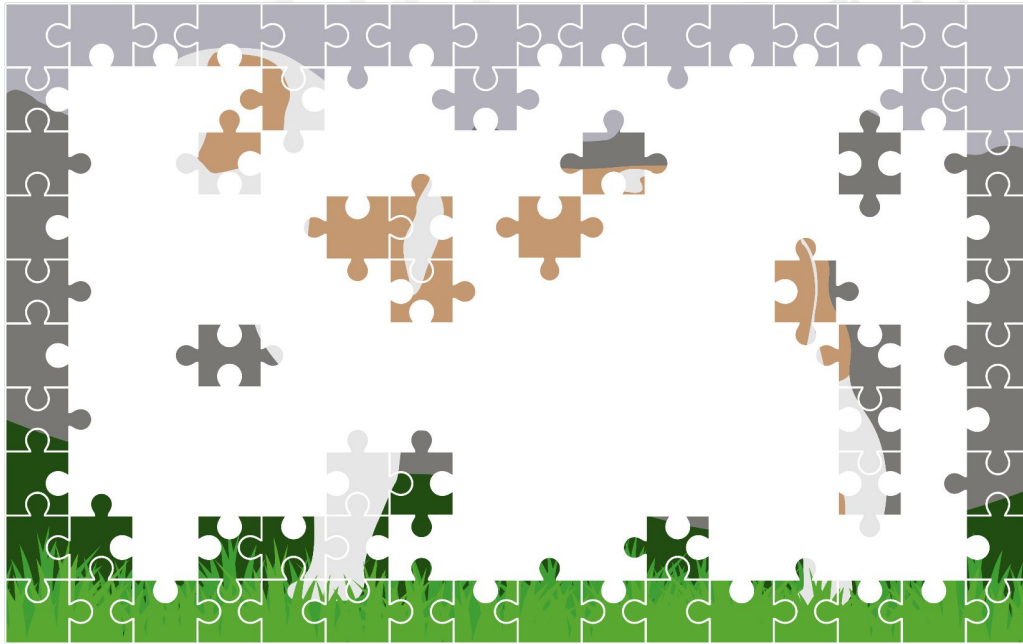
---

1. Smith, A. & Jones, B. (2021). The effectiveness of teaching learning schemas to nursing students. *Journal of Nursing Education*, 56(3), 41-49. <https://doi.org/10.3928/01484834-20210216-05>  
2. Muller-Juge, V., Cariou, M., & Gerbay, B. (2020). Use of concept maps to improve nursing students' critical thinking skills. *Journal of Nursing Education and Practice*, 10(1), 9-16. <https://doi.org/10.5430/jnep.v10n1p9>  
3. Folkins, C., & Tschanz, C. (2016). Using graphic organizers to enhance nursing student's learning. *Journal of Nursing Education and Practice*, 6(9), 19-25. <https://doi.org/10.5430/jnep.v6n9p19>



## Definition of Scaffold

“The process of **breaking lessons into manageable units**, with the teacher providing **decreasing levels of support as students grasp** new concepts and master new skills.”



### PRO TIP

An easy way is to imagine scaffolding like **systematically** and **strategically** giving your students **pieces of a puzzle** to help them **understand the bigger picture**

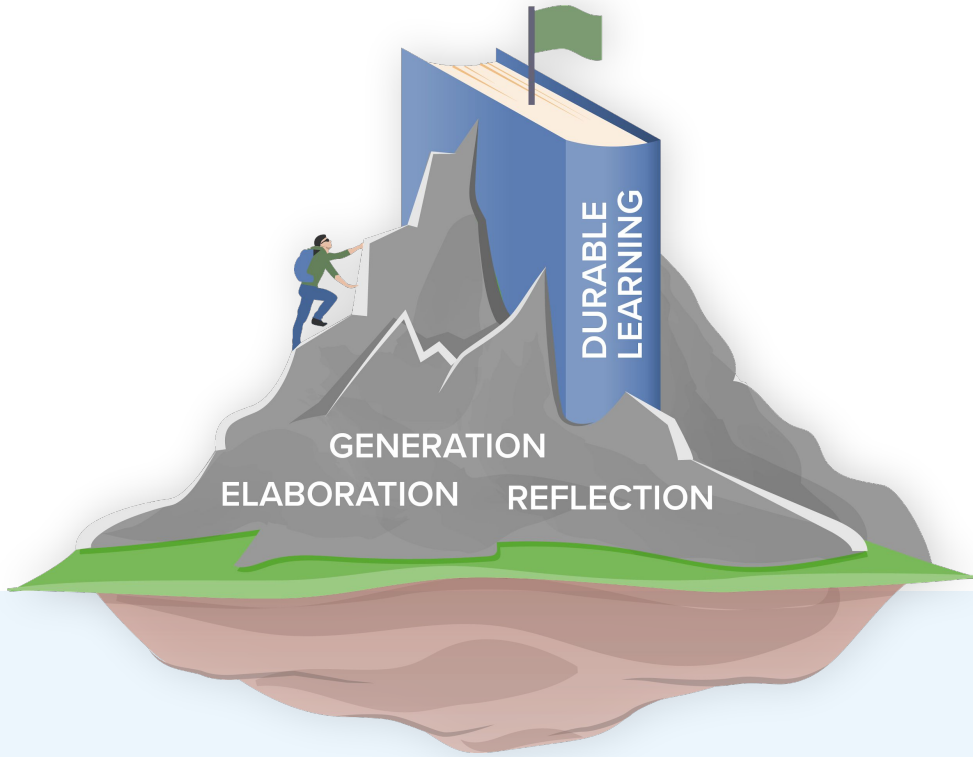


## **Active Learning**

An approach to help you  
achieve effective learning

# Definition of Active Learning

**Instructional activities** that involve students in the delivery and encourage them to think about what they are doing







## Question

Which of the following do you think are active learning?

1. Students actively listening and taking notes in class
2. Socratic questioning
3. Pre-class or clinical assignments
4. Game based assignments in virtual spaces
5. Simulations
6. Case studies
7. Group discussions about clinical experiences

Select all that apply in the poll that will pop up



## Question

Do you think active learning is effective?

1. Yes
2. No

Please share your answer in the poll

# Characteristics of Active Learning

What type of activities are actually active learning?



- Reframes the **student** as an **active participant** in the search for knowledge
- Puts the **student learning need** at the **center** of the process rather than top-bottom approach
- Deliberately **integrates theory concepts** into practical applications

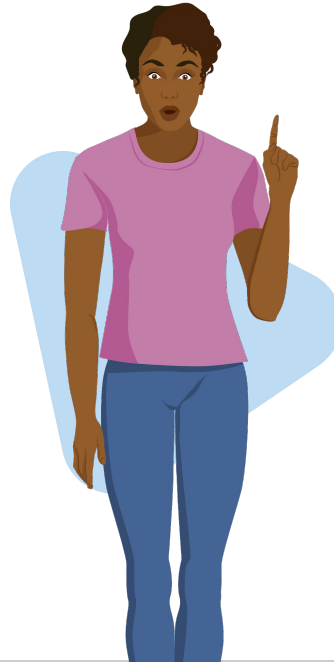
# Benefits of Active Learning

What kind of nurses do we get through active learning?

Better prepared for the job market

More empathetic, safe, and creative

Prepared for group work and communication



Allows for self-reflection and learning

Awareness for limitation and needs

Better clinical judgement

# Characteristics of Active Learning

## What makes a learning event “Active”

Strategy	Why it is AL	Main Results	Strategy
Flipped Classroom	Requires self-direction	Increased preparation for classroom learning	Triggering for students, if they don't complete, superficial learning in classroom
Simulation	Forced response to stimuli, apply previous learning	Greater engagement in active and collaborative concepts, practice in clinical decision making	Workload for faculty, consistency of experience, subjective vs. objective evaluation
Game Based	Requires self-direction, comfort and interest in platform	Motivation to compete	Tech learning curve
Problem Based / Case Studies	Forced response to targeted stimuli, apply previous learning	Increased clinical judgement, practice in clinical decision making	Expertise to align problem to concept and level of student, requires self-direction

# Barriers to Active Learning

Some things that makes implementing Active Learning challenging



- Lack of preparation by both **faculty** and **learners**
- Lack of **Structural Support**: logistics, tech, and flipped classroom issues
- Student **dissatisfaction** due to **lack of awareness** about the method
- The occasional poor team player impacting group work-based strategies negatively
- Inexperienced facilitators leading to poor academic outcomes

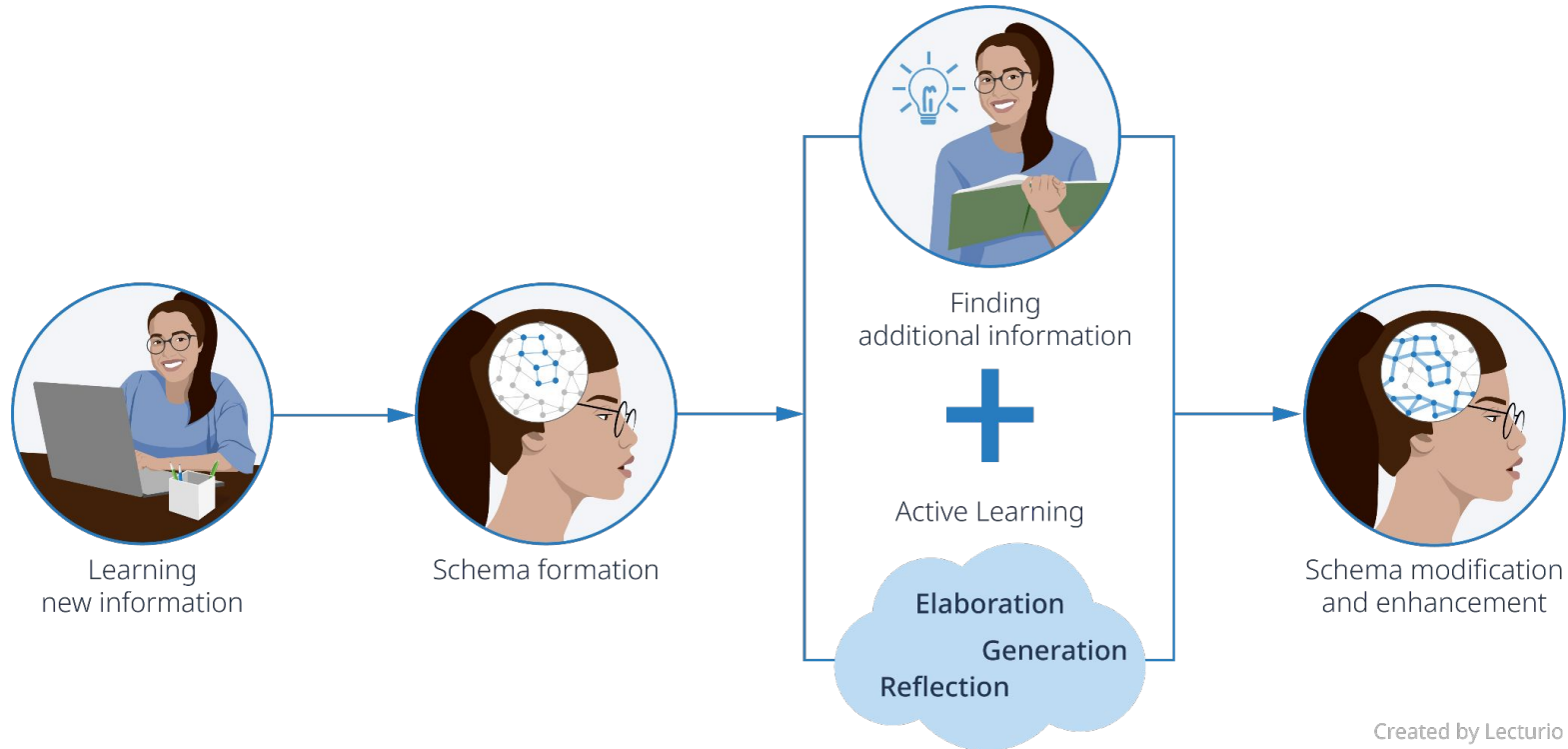


## **Active Learning Case Study**

Let's talk about how it  
can be applied

# Active Learning within the Learning Journey

Where does it fit in within the learning continuum?



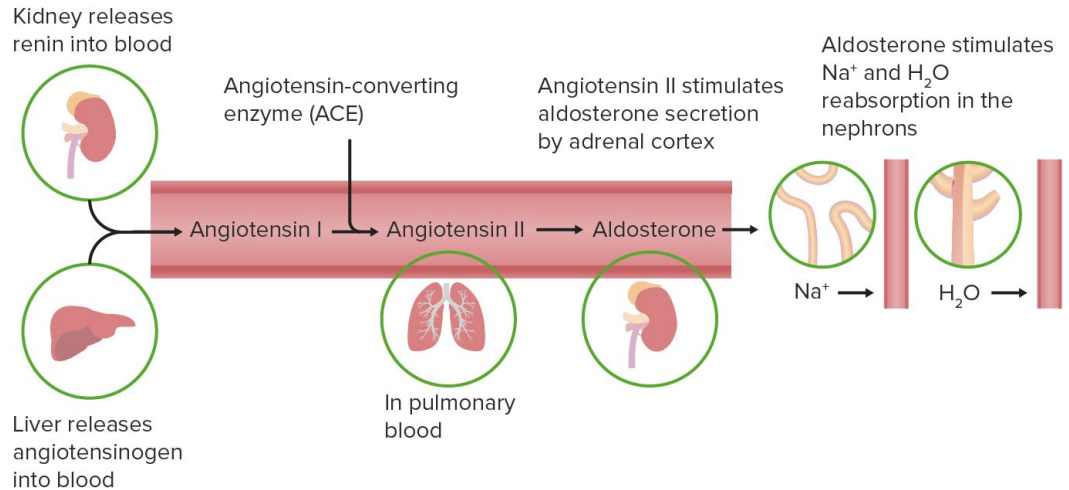


# The Importance of Scaffolding

Unadjusted difficulty level and lack of background knowledge can be a detriment to learning

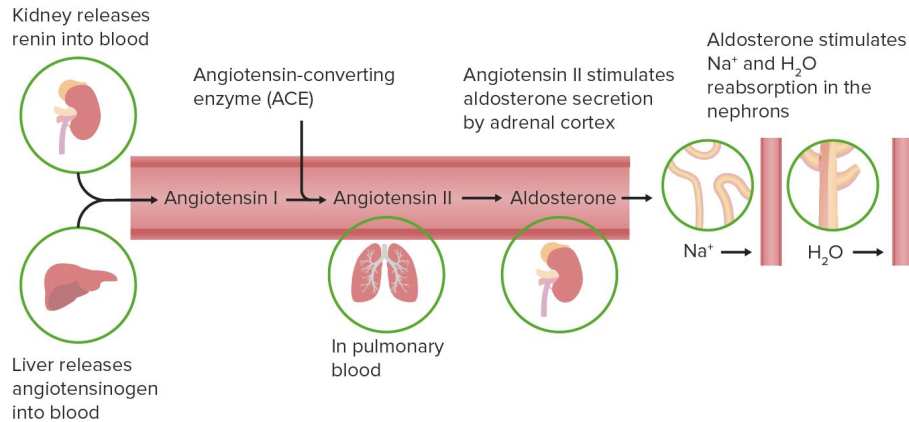


Learning New Information



# The Importance of Scaffolding

Unadjusted difficulty level and lack of background knowledge can be a detriment to learning



- **Beginner/unprepared learner** - may perceive as too complicated and cause cognitive overload
- **Prepared student** - same graphic can become a mnemonic device that summarizes the RAA system
- How can we use this for facilitating learning ARBs, ACE inhibitors, Direct Renin Inhibitors, & Aldosterone Receptor Blockers



## Question

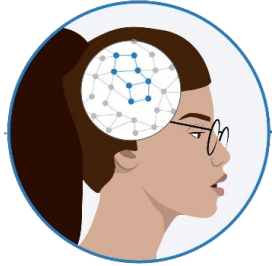
Which of these systems release substances that raise your blood pressure?

1. Lungs
2. Kidneys
3. Liver
4. Appendix
5. Pancreas

Select all that apply through the poll

# Enhancing Schema Formation

Where active learning comes into play



Schema Formation

In the case of our RAAS image, we want to give students the following **scaffold**, to **enhance their learning** and subsequent **schema formation** when understanding the diagram:

- **Which enzymes** constitute the **RAA System**
- **What interactions** do they have with each other
- **What biological effect** is then produced by these enzymes and their interactions.

# Enhancing Schema Formation

Where active learning comes into play



Finding  
additional information



Active Learning

Elaboration  
Generation  
Reflection



**Guided knowledge generation can help!**

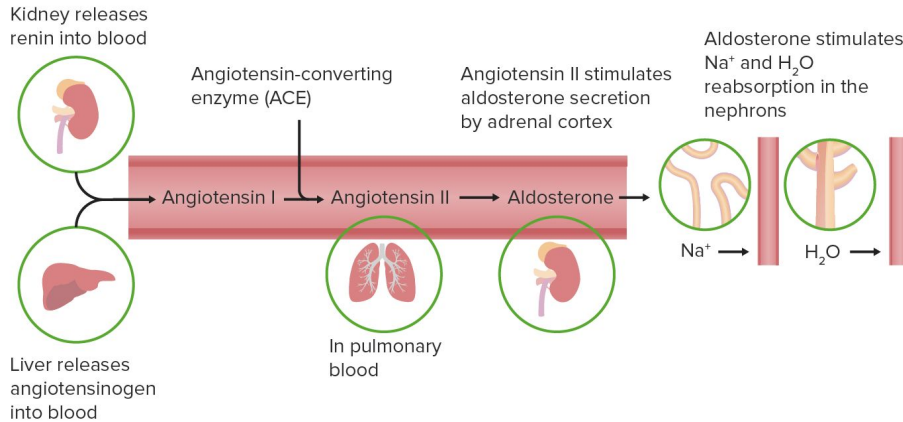
## Instructions:

Having understood the basics of the RAAS, fill in the blanks without referring to the image. You may use library resources to complete this.

- Renin + \_\_\_\_\_ = \_\_\_\_\_
- \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_
- Which stimulates the release of \_\_\_\_\_
- And causes potent vaso\_\_\_\_\_

# Enhancing Schema Formation

Where active learning comes into play



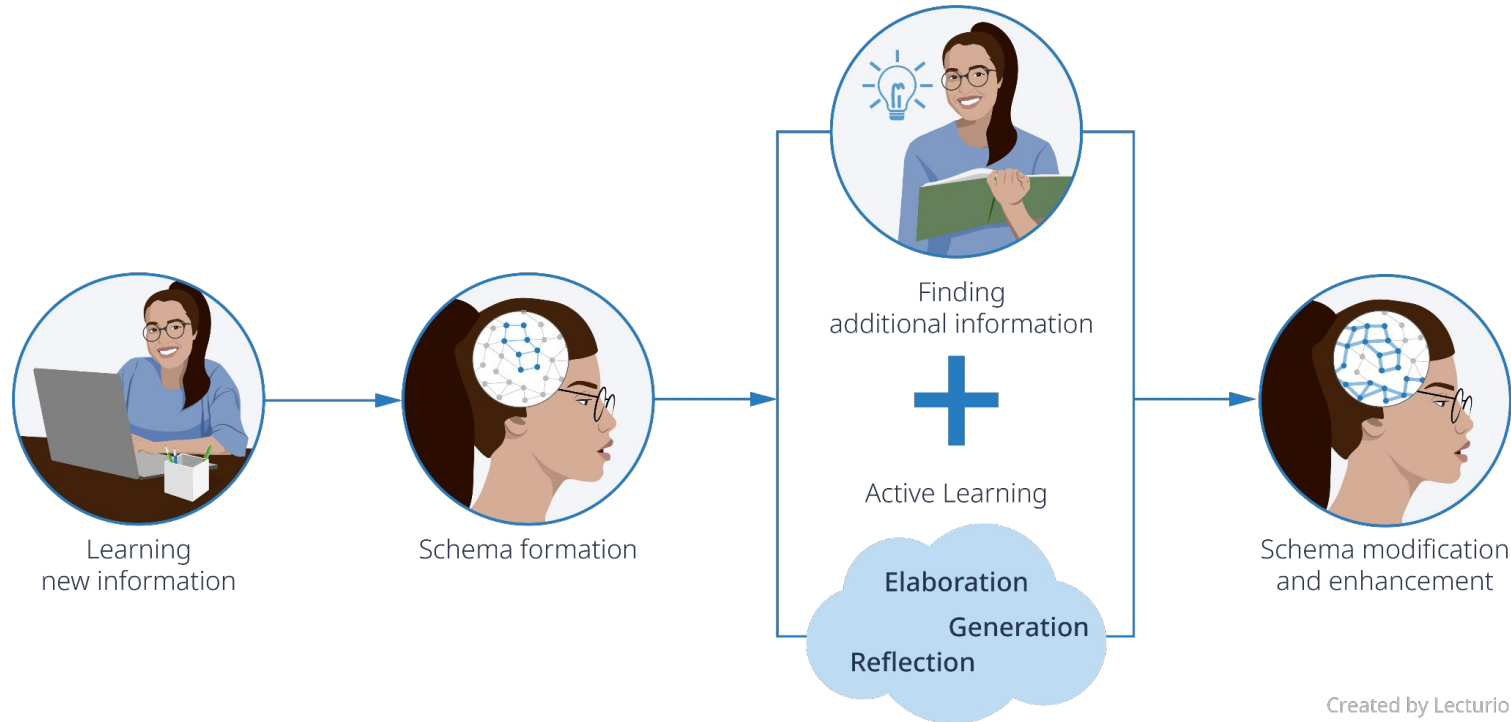
**Reflection can also help!**

## Instructions:

Look back at your answers and refer to the image on the side. Can you place where those statements are in the image?

# Reviewing the Teacher's Role in Active Learning

Going through the steps and identifying our role



Created by Lecturio

# Reviewing the Teacher's Role in Active Learning

Going through the steps and identifying our role



Learning  
new information

A teacher's role starts here

- As the student prepares to learn, the teacher **prepares the paraphernalia** required for successful knowledge transfer.
- Plan for **active learning methodologies** to be incorporated and **proper communication** of **learning outcomes** to the students.
- Important to recall that the **benchmark of successful learning** is the **student's outcome**, not the delivery of course goals.

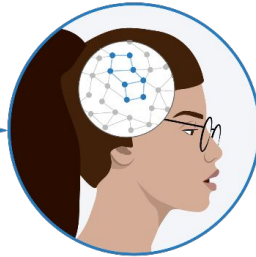


# Reviewing the Teacher's Role in Active Learning

Going through the steps and identifying our role



Learning  
new information



Schema formation

## Scaffolding knowledge for the students

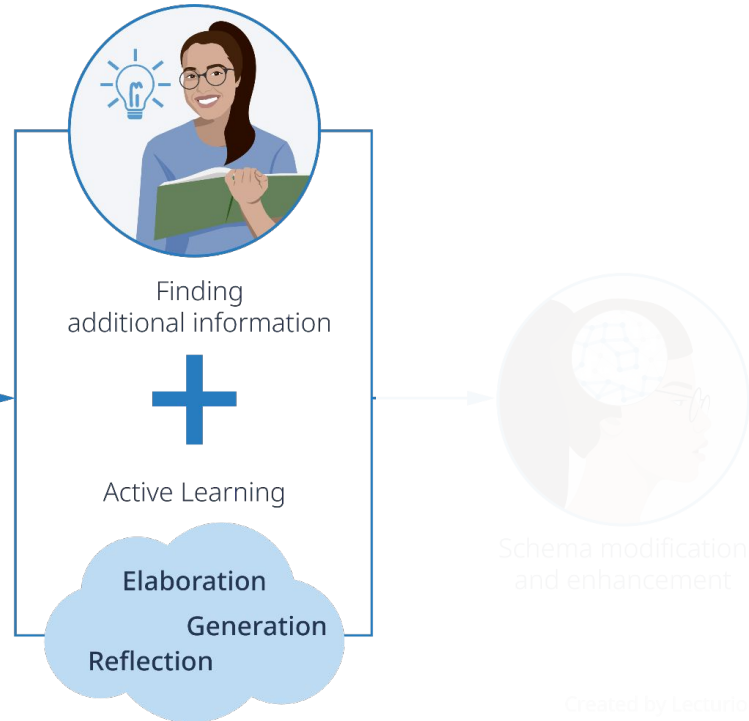
- Schema building is one of the scaffolding strategies that help students learn more effectively
- *"What knowledge should I best give at this point to help provide scaffolding for my students?"*
- More importantly, *"How do I involve them in the process to best build this scaffolding?"*

# Reviewing the Teacher's Role in Active Learning

Going through the steps and identifying our role

## Faculty Supported Active Learning

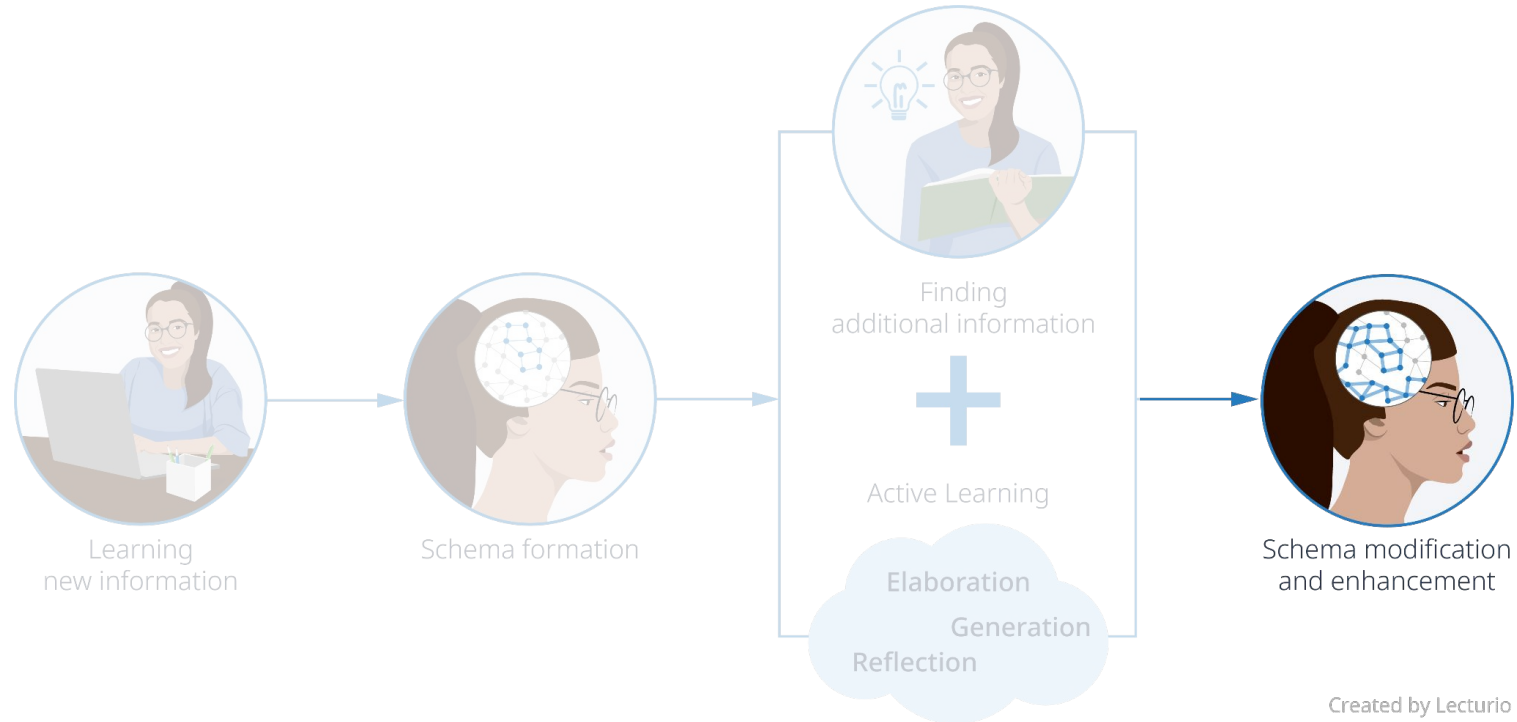
- Appropriately incorporating active learning strategies can improve learning outcomes
- *"What kind of **active** information gathering would work here?"*
- Each interaction with students need proper scaffolding
- *"How can I guide them through E, G, and R? And help them evaluate their schema and modify??"*



Created by Lecturio

# Reviewing the Teacher's Role in Active Learning

Going through the steps and identifying our role



Created by Lecturio



## **Let's try applying it on a bowtie question**

Concrete application in the NGN era

# Example of Bowtie


What does a Bowtie **story** look like?

## Nurses' Notes

## History & Physicals

12:15

A client presents to the ED accompanied by the spouse, reporting generalized weakness and vomiting. The client denies fevers and diarrhea and reports being approximately 9 weeks pregnant based on a home pregnancy test. The client's pregnancy history is Gravida 2; Para 0; Abortion 1. The client denies vaginal bleeding and abdominal pain. The client reports persistent nausea and vomiting over the past 4 days, with 1 episode of vomiting reported en route. PO intake has not been tolerated for the last 24 hours due to vomiting. The client is alert and oriented but reports dizziness accompanied by a headache. Lung sounds are clear and equal. The apical pulse is regular and rapid. Radial pulses are present. Dry mucous membranes are noted and the client reports the last episode of urine output was eight hours ago. The client reports inability to provide a urine sample. A urinalysis is ordered and the HCP performs a transvaginal ultrasound at the bedside, obtaining fetal heart tones at 167 beats/min.



Vital Signs	Results
Temp (oral)	37°C (98.6°F)
Pulse	119 bpm
BP	92/54 mmHg
Resp.	22 breaths/min
SpO <sub>2</sub>	94% room air

# Example of Bowtie

What does a Bowtie format look like?

## Actions to Take

Administer pain medication

**Request lactated Ringer's infusion**

Encourage PO Intake

Obtain a stool culture

Administer antiemetics

## Potential Conditions

Migraine

**Hyperemesis gravidarum**

Foodborne illness

## Parameters to Monitor

**Intake and output**

Culture results

**Vital signs**

Stress level

Pain

# Clinical Judgment Measurement Model

## Quick scenario development

Which (statement, symptom, lab value, complaint) is most concerning?

- MAL Follow-up, *why? What would you do?*

Which (statement, symptom, lab value, complaint) puts the client at risk for more complications?

- MAL Follow-up, *why? What would you do?*

List several symptoms, several different possible diagnoses/conditions. Use bow tie format

- which 2 symptoms are most concerning?
- which one of the diagnoses?
- what 2 things should you do for this patient?



# Application of Generation / Elaboration

## Self-explaining

### What the students can do

They need to self-explain the thing they are learning to themselves:

- **Choose** the relevant core information.
- **Restate** in their own words.
- **Generate** inferences and **integrate** current learning with prior knowledge.

### What you need to do

- Incorporate this into your lesson plans.
- Explain the purpose and correct examples of this action beforehand.
- Specify the kinds of inferences you want them to make and guide their explanations.



# Application of Reflection

## Clinical Portfolio Assessment

### What the students can do

- The **Situation**: What, when, who.
- The **Emotion**: How it made them feel.
- The **Result**: Why it happened the way it did.
- The **Process**: Could anything have been improved at the time.
- Future **Planning**: What to do the next time it occurs.

### What you need to do

- Build a **safe** and **supportive** environment for reflection to occur.
- Develop a portfolio template that includes **strategic reflective prompts**.
- Ensure parity in **definitions** and develop a **shared discourse**.

- 
1. Fernsten L, Fernsten J. Portfolio assessment and reflection: enhancing learning through effective practice. Reflective Practice [Internet]. 2005 Jan [cited 2022 Nov 4];6(2):303–9. Available from: <http://www.tandfonline.com/doi/abs/10.1080/14623940500106542>
  2. Koshy K, Limb C, Gundogan B, Whitehurst K, Jafree DJ. Reflective practice in health care and how to reflect effectively. IJS Oncology [Internet]. 2017 Jun 15 [cited 2022 Nov 4];2(6):20. Available from: <https://www.ijsoncology.com/article/10.1097/IJ9.0000000000000020/>

# Coaching goals for nursing faculty

Nursing faculty should....

- Provide students with a safe space for informed reflection on academic, personal and professional performance
- Encourage student well being
- Assist students in setting and reaching goals
- Motivate students to establish good habits





# Conclusion

# Conclusion



1. Revisions to NCLEX exams are done to increase the ability of the exam to evaluate student clinical reasoning and “pass” students with stronger critical thinking skills
2. The shift towards NGN items is an opportunity for us to re-evaluate the way we teach and improve it to better prepare our students for their practice
3. At the end of the day, coaching students to become master adaptive learners builds their long-term capability to learn and retain information

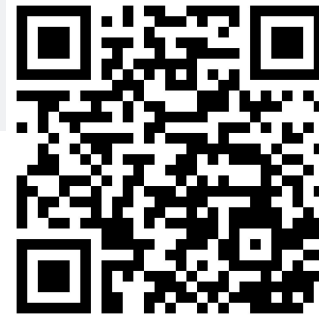
# Connect with our Nursing Educator Community



**Sign up** for Lecturio's monthly **Nursing Insider newsletter** to receive news and insights from the nurse educator world.



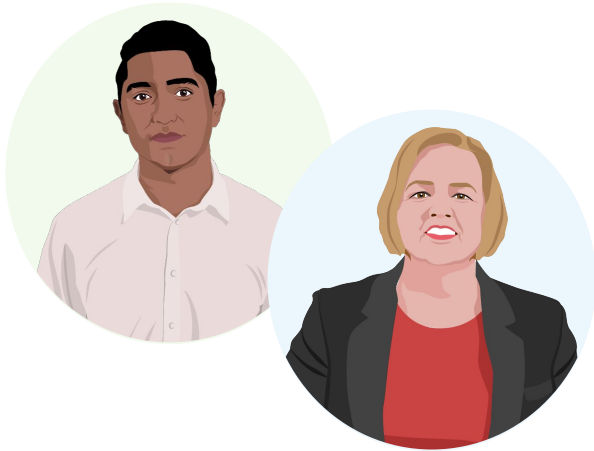
**Get 60 days of complimentary access** and a free demo of Lecturio



Connect with me on LinkedIn!

<https://www.linkedin.com/in/rlawes-rn/>

# Would You Like to Stay up to Date on Future Events?



Nursing Educator Webinar

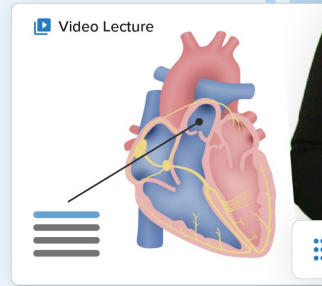
## How to Write Items for the NCLEX: An Interactive Workshop

October 25, 2023,  
10:00 PDT | 12:00 EDT | 18:00 CET



# Thank you for joining!

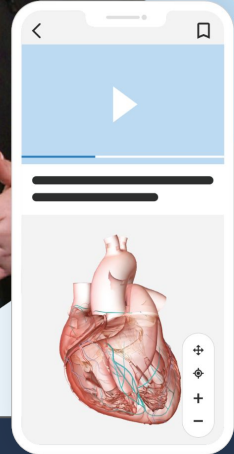
Contact me:  
[r.lawes@news.lecturio.com](mailto:r.lawes@news.lecturio.com)



Learning Objectives

Playlists

Notes





# Unused Slides