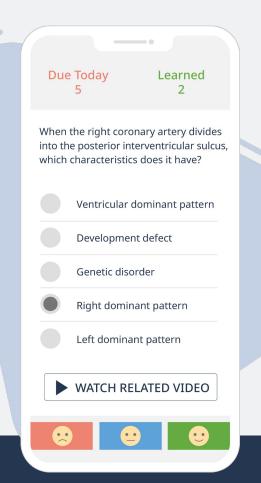
#### **Start Smart Webinar**

# Teaching Test-Taking Skills

Equip students with winning strategies

Prof. Rhonda Lawes, PhD, RN August 21, 2024





#### **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

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#### Medical



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# **Learning Outcomes**

After this session, participants will be able to:

- Create student learning environments and mindsets that alleviate test anxiety.
- **Facilitate** a plan for students to improve their time management skills.
- Review effective question-tackling strategies with students.



# Create Student Learning Environments and Mindsets That Alleviate Test Anxiety

# Internal Learning Environments



- 1 Academic Resilience
- 2 Academic Self-Efficacy

3 Academic Growth Mindset

# Skill areas for building student resilience



#### **Academic Resilience**

**Resilience** is context specific.

#### **Academic Resilience**

The student's ability to effectively manage and overcome academic challenges.

Research indicates that **resilience can be fostered** through reflective practice and
resilience training programs (Turner et al., 2017).

### **Academic Resilience Medical School Case Study**

Interventions "Breaking Down Easy" and "My Resilience Practice"

MedEdPORTAL. 2021; 17: 11076.

Published online 2021 Jan 25. doi: <u>10.15766/mep\_2374-8265.11076</u>

PMCID: PMC7830747

PMID: 33511272

Everyday Resilience: Equipping Faculty With Practical Exercises to Promote Resilience Among Medical Students

Galina Gheihman, MD,\*,1 Tara A. Singh, MD,2 Cynthia A. Cooper, MD,3 Bri Anne McKeon, MD,4 David A. Hirsh, MD,5 and Arabella L. Simpkin, MA, BMBCh, MRCPCH, MMSc6

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Journal Article

# **Breaking Down Easy**

- 1. **Select an Ordinary Task:** Choose a simple, everyday task that you perform regularly and often take for granted, such as making coffee, commuting to work, or organizing your workspace.
- 2. **Identify competencies and attributes:** Break down the task into the specific skills and personal attributes required to complete it. For example, making coffee might require attention to detail, time management, and consistency.
- 3. **Reflect on Personal Strengths:** Consider how these competencies and attributes reflect your personal strengths. Think about how these strengths have helped you succeed in other areas of your life.
- **4. Formative Reflection:** Reflect on past successes and instances where you have demonstrated perseverance. Consider how these experiences can be applied to current challenges.
- **5. Share with a Partner:** If in a group setting, share your reflections with a partner to gain additional insights and perspectives.

### **My Resilience Practice**

- 1. **Identify Stressors:** List common stressors you encounter in your daily life, such as deadlines, exams, or interpersonal conflicts.
- 2. **Reflect on Coping Strategies:** Think about the stress-management techniques that have worked for you in the past. Consider strategies that you may have used unconsciously or that have gone unnoticed.
- **3. Create a Coping Plan:** Develop a prospective plan to actively and adaptively cope with future stressors and setbacks. Include specific actions you can take and resources you can utilize.
- **4. Focus on Self-Care:** Identify self-care practices that help you recharge and maintain well-being during challenging times.
- **5. Engage Social Support:** Plan how you will engage social support from peers, family, or mentors when facing stressors. Consider how you can also provide support to others.
- **6. Peer-to-Peer Support:** In a group setting, discuss your coping plans with peers to foster real-time social support and role modeling.

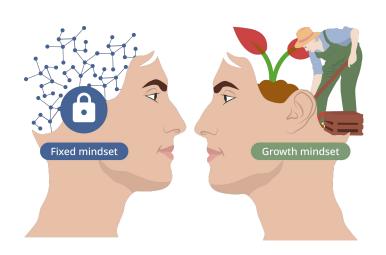


# **Academic Self-Efficacy**

High self-efficacy is associated with increased motivation and persistence in challenging tasks (Zimmerman, 2000).

Academic self-efficacy is correlated and a significant predictor of academic resilience (Cassidy, 2015).

#### **A Growth Mindset**



#### • The individual with a growth mindset (Dweck, 2006):

- believes intelligence and abilities can be developed.
- emphasizes learning and improvement over mere performance
- views challenges as opportunities for growth.
- o actively seeks constructive feedback.
- shows persistence in the face of difficulties.

#### Mindset Continuum:

- mindsets range from fixed to growth
- everyone exhibits a mix of both mindsets
- identifying triggers for each mindset is crucial



# **Avoiding False Growth Mindset** (Memari et. al, 2024)

- Ensure that the growth mindset is genuinely adopted rather than superficially applied.
- This means recognizing and rewarding effort and progress, not just outcomes.
- Educators should model a growth mindset themselves by reflecting on their teaching methods and learning from feedback.

#### Cultural Considerations:

- a. Be mindful of cultural differences in how growth mindset interventions are received.
- b. For example, in some cultures, there may already be a strong emphasis on effort, so the focus should be on enhancing mental well-being rather than just increasing study hours.



# Facilitate a Plan for Students to Improve Their Time Management Skills

### **Time Wasters in Healthcare**

#### A qualitative study (Addis et al. (2023)

- "Because, by efficiently managing my time, I could avoid becoming overwhelmed and I can balance my tasks. I think **my future will be determined not by tomorrow but by what I do now**. Time is like a river, in my opinion. One cannot touch the same water twice since the flow that has passed will not ever occur." (Interview with a 40-year-old female participant, P1). Similarly, a 37-year-old male participant, P6,said that:
- "... proper time management could be practiced through **developing certain key skills such as planning, scheduling, and delegating daily tasks**."

• "...Effective time management requires regular practice, not just one morning. Though I was poor in time management, I improved it over time by prioritizing daily tasks. Time management is a skill that can be learned." (Interview with a 45-year-old, male participant, P5).

# **Common Ways Students Waste Time**

- 1. **Postponing/procrastinating** tasks which leads to inefficiencies and increased stress levels (Addis et al., 2023)
- 2. Lack of time management skills which leads to anxiety, burnout, and dissatisfaction (Zyoud, 2023)
- 3. **Excessive time on social media** (Hashim et al., 2024)

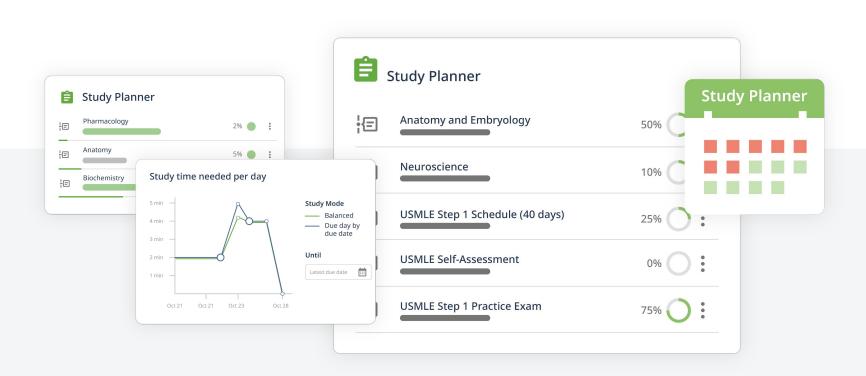


# **Common Ways Students Waste Time**

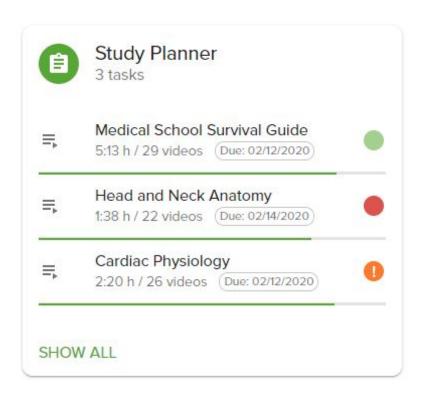


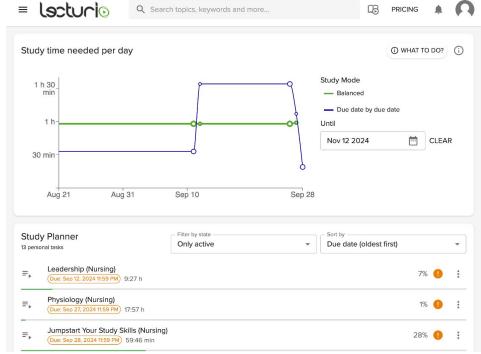
Challenge	Recommendation for Faculty and Students
Postponing/procrastinating tasks leads to inefficiencies and increased stress levels (Addis et al., 2023)	<ul> <li>Increasing student's self-regulation skills</li> <li>Increasing student's awareness of small steps necessary to be successful in larger goals</li> <li>+++ Consider possible neurodivergence.</li> </ul>
Lack of time management skills leads to anxiety, burnout, and dissatisfaction (Zyoud, 2023	<ul> <li>Agree on minimum standards/best practice for the level of coursework (managing deadlines, due dates, group work, etc.).</li> <li>Assist the student with identifying the type of tool that works best for the individual.</li> <li>Paper vs. digital, etc. that allows the student to visualize the amount of work required vs. credit card syndrome</li> </ul>
Excessive time on social media (Hashim et al., 2024)	<ul> <li>Increase student's self-awareness of unintentional time on social media (weekly activity reports).</li> <li>Take steps towards intentional use of social media and plan</li> </ul>

# **Lecturio Study Planner**



# **Lecturio Study Planner**





### **Test-taking Time Management Strategies**

Regular practice questions will increase student efficiency and accuracy.

Ensure the student is aware of all question types that will be on the exam.

Facilitate students knowing when to move on to the next question.

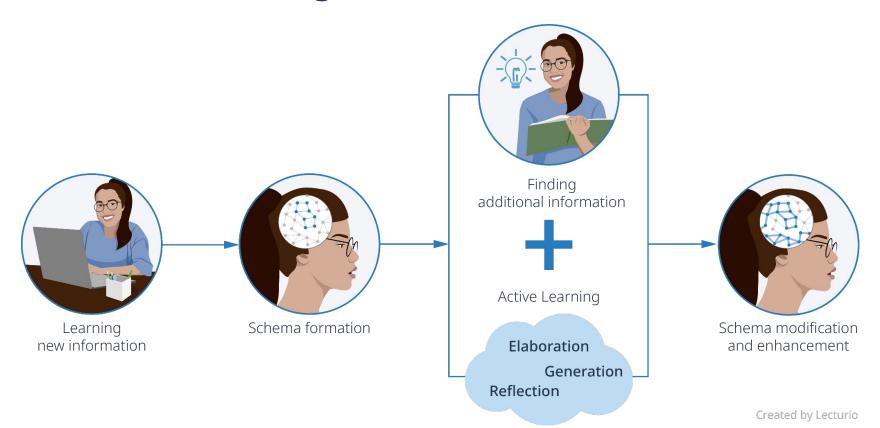
Foster academic resilience, academic self-efficacy, and academic mindset development strategies to be used during the exams.

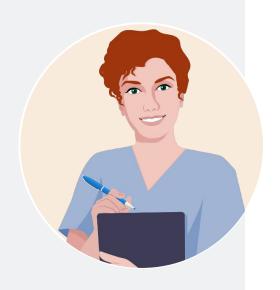


# Research Based Study Strategies

The foundation of students' exam success in healthcare education.

### **How Active Learning Works**



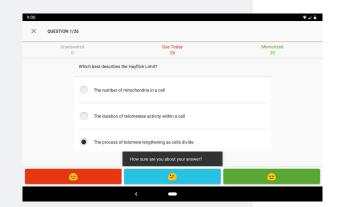


#### The Evidence for Generation

- Students generating and independently answering their own questions **achieved better retention**.<sup>1</sup>
- It has been found to work best when learners **produce** material during the encoding process. <sup>1</sup>
- Under an fMRI scan, it has been observed to cause broader neural network participation than simple reading.<sup>2</sup>

<sup>1.</sup> McCurdy MP, Viechtbauer W, Sklenar AM, Frankenstein AN, Leshikar ED. Theories of the generation effect and the impact of generation constraint: A meta-analytic review. Psychon Bull Rev. 2020 Dec;27(6):1139–65.

<sup>2.</sup> Brown PC. Make it stick: the science of successful learning. Cambridge, Massachusetts: The Belknap Press of Harvard University Press; 2014. 313 p.





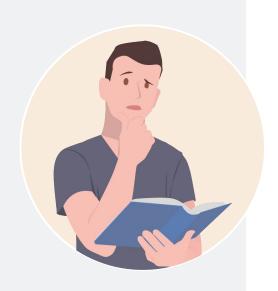
### **Spaced Repetition Advantages**

#### SR and Memory Retention and Recall

- Enhances memory retention and recall
- Must be distributed over time
- Evidence supports improvement of long-term retention across various disciplines

#### SR and Cognitive Mechanisms

- Improves the quality of encoding of information
- Increases encoding into long-term memory by allowing for memory consolidation
- Reduces cognitive load
- Reduces the impact of the forgetting curve from steepening too quickly



# **Active Recall Advantages**

#### Retrieving information from memory

#### Enhanced Learning Outcomes

- More effective than passive review methods
- Strengthens neural connections and improves the ability to recall/retrieve information later

#### Testing Effect

 Repeated testing enhances long-term memory more effectively than repeated studying.

#### Integration of Spaced Repetition with Active Recall

 Synergy effect that maximizes retention by reinforcing learning at optimal intervals



# **Facilitating Active Recall**

Ideas for faculty implementation at the beginning of class

- What did we discuss in our last class?
- What was the most unclear for you?
  - How did you address that?
  - What do you now understand more clearly?
- Based on your preparation for class today, what do you think is the main purpose of our discussion today?
- If you were leading today's class, what are the three most important things you would want each student to leave the class with? Why?



#### **Active Recall**

#### Ideas for faculty implementation during class

#### Template for faculty question to students:

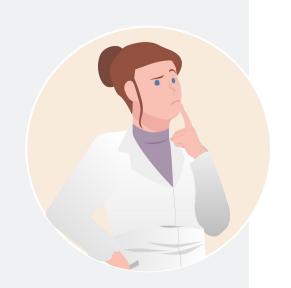
How does this concept (insert example) connect to this concept from our other class (insert example)?

#### Active Recall Basic Example:

What are the **characteristics of cardiac valves** that are necessary to **maintain adequate perfusion**?

#### Follow-Up:

Do you agree or disagree, and why?



#### **Active Recall**

#### Ideas for faculty implementation during class

#### Template for faculty question to students:

How does this concept (insert example) connect to this concept from our other class (insert example)?

#### Active Recall Basic Example:

The patient is experiencing **RUQ pain, sinus tachycardia, and increased respiratory rate** as a first step in differential diagnosis **what are all the possible diagnoses you should consider**?

#### Follow-Up:

Do you agree or disagree, and why? What diagnostic test would you order?



#### **Active Recall**

Ideas for faculty for students planning their next action steps

- What three key concepts did you learn today?
  - A concept specific question such as "What are the three most important concepts regarding the third spacing of fluid in the body?
    - How will you apply what you learned in your practice to keep your patients safe?
- Where/what do you feel is the most unclear to you?
  - What is your plan to resolve that academic ambiguity?



# Review Effective Question-Tackling Strategies With Students





### **Test-Taking Strategies**

Tips for shredding the stem of the question

#### The most common mistakes students make on exams

- Misreading the question
- Missing key qualifiers, adjectives, and variables
- Gravitating instead of eliminating each answer and stating "why" that one is not the "best" answer.

#### Strategy #1 – Be Particular!!

- There will often be more than one right answer
- The particulars or the "context" of the question is important
- No one answer is right on all situations.



#### Strategy #2 – Use Your Own Words

Reword the question in your mind using your own words

#### Particular patient

**Age:** 56

**Diagnosis**: Diabetic **Meds:** No insulin

Complaints: Chest tightness and nausea 4-5 hours

#### Particular setting Emergency Room



#### Strategy #3 – Eliminate Don't Gravitate

- No one answer is right on all situations.
- Use your write-on wipe off board
- Eliminate answers and say WHY you are eliminating them





Common student testing errors	Recommendation	
Missing key qualifiers, adjectives, and variables	Identify patient particulars: setting, individual variables (age, gender, history, diagnoses, s/s). Assessment Data: normal/abnormal? Numbers: high/low/normal	
Misreading the question	Using each of the patient particulars, put the question into their own words.	
Gravitating instead of eliminating each answer and stating "why" that one is not the "best" answer.	Eliminate each answer one by one and force yourself to say "why" this is not the best answer.	

# **Framework for Notetaking**

Diagnosis or Procedure	Worst Case Scenario	How would I recognize it?	What would I do to resolve the S/S?	What do I need to monitor?

# **Framework for Notetaking**

Diagnosis or Procedure	Worst Case Scenario	How would I recognize it?	What would I do to resolve the S/S?	What do I need to monitor?
Opioid Overdose	Respiratory Failure	Decreased consciousness, pinpoint pupils, decreased respiratory rate and depth of breath, hypotension	Naloxone (may need repeated doses)	Vital signs and level of consciousness

### **Example of a Question Walk-Through**

A client who has a history of drug addiction is brought into the emergency department (ED) by the client's family after noticing that the client could not be aroused. Which symptom(s) should the healthcare team member recognize as necessitating an immediate dose of naloxone?

#### Select all that apply.

- A. Slow, shallow breathing at a rate of 10 breaths/minute
- B. Tremor
- C. Pinpoint pupils
- D. Loss of consciousness
- E. Swelling of the legs, ankles, and feet
- F. Cold or clammy skin

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Select all that apply.

- A. Slow, shallow breathing at a rate of 10 breaths/minute ~ yes/no and why
- B. Tremor ~ yes/no and why
- C. Pinpoint pupils ~ yes/no and why
- D. Loss of consciousness ~ yes/no and why
- E. Swelling of the legs, ankles, and feet ~ yes/no and why
- F. Cold or clammy skin ~ yes/no and why



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# Conclusion



#### Conclusion

- Create student learning environments and mindsets that alleviate test anxiety. (physical and mental environments)
- Facilitate a plan for students to improve their time management skills. (Faculty mentorship)
- Review effective question-tackling strategies with students. (Reinforce the value of practice)



# Looking forward to our next Start Smart event?

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**Clear the Clutter:** 

Cognitive load tips for educators

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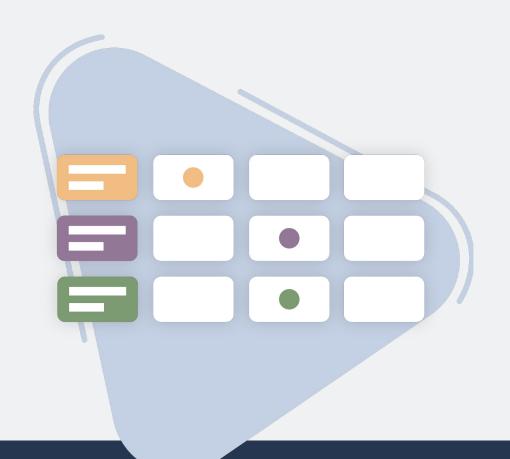
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**Start Smart Webinar** 

# Thank You for Joining!

Contact me:

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- 1 Learning Objectives
- 2 Question Samples
- What is Coming Up?
- 4 Case Study (Elements 1-6)
- 5 Conclusions