

ACTIVE LEARNING

Ariel Winn

Teaching Certificate Seminar Series

12/11/17



12 keys to learning...

- Ask lots of questions, especially helpful especially if they are open-ended questions
- Problem solving is the key to success
- Don't do too much work, this means giving people work before
- You should have clear objectives, this should be limited to 2-3 that you actually can remember
- Try to break up your sections, you don't bore people
- Sometimes, that tends to be the learner.
- You should try and build in some discussion into a lesson that allows all learners to be engaged
- Try to guess what I am thinking, it's hard for people to answer
- Make sure you don't answer your own questions, give learners time to answer
- It is important to have knowledge of questions
- Take people's questions, it takes away the temptation
- Don't forget to...

QUESTIONS???

What is it?

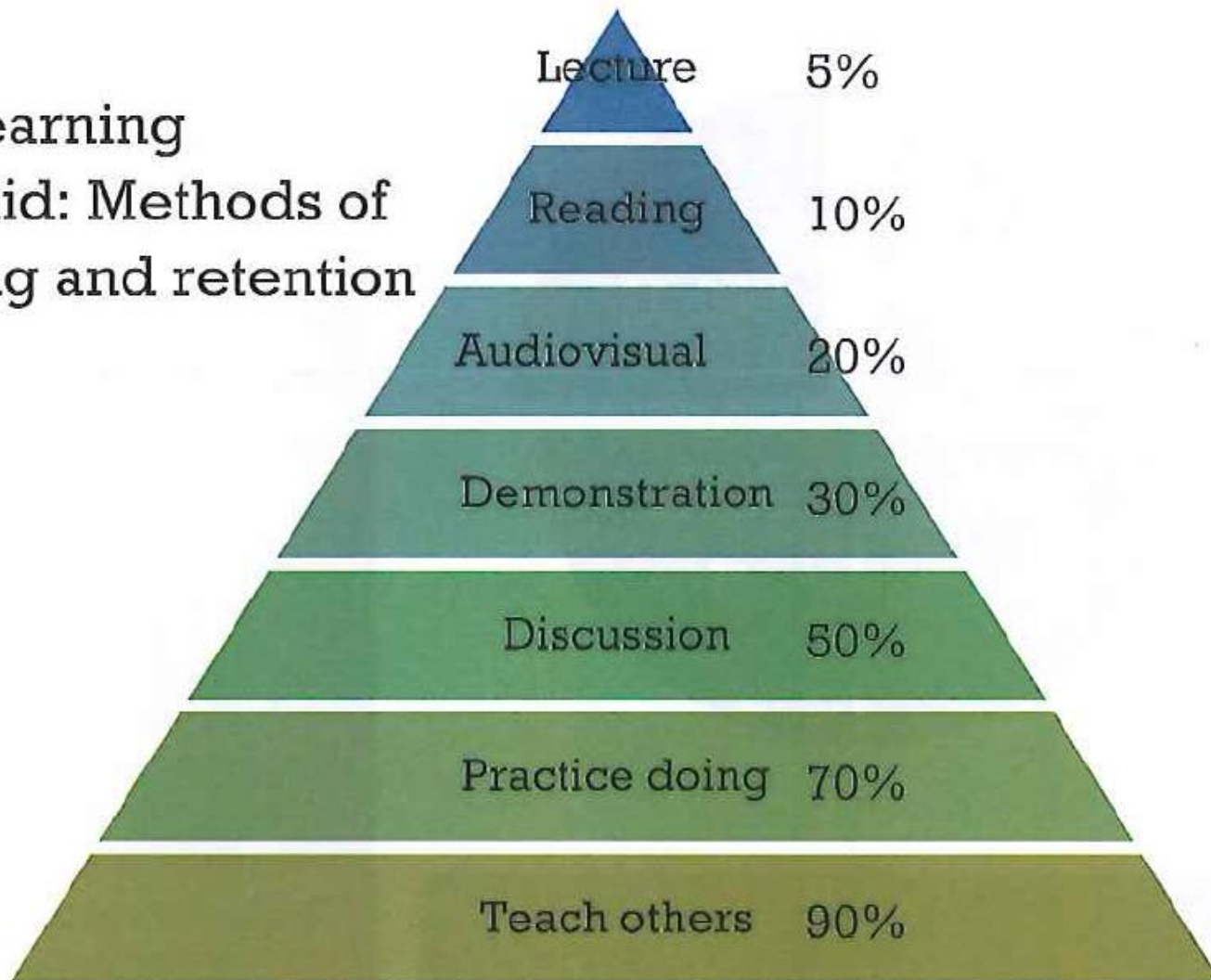
Any learning activity in which the learner is regularly interacting with the teacher and other learners as a means to gain deeper understanding



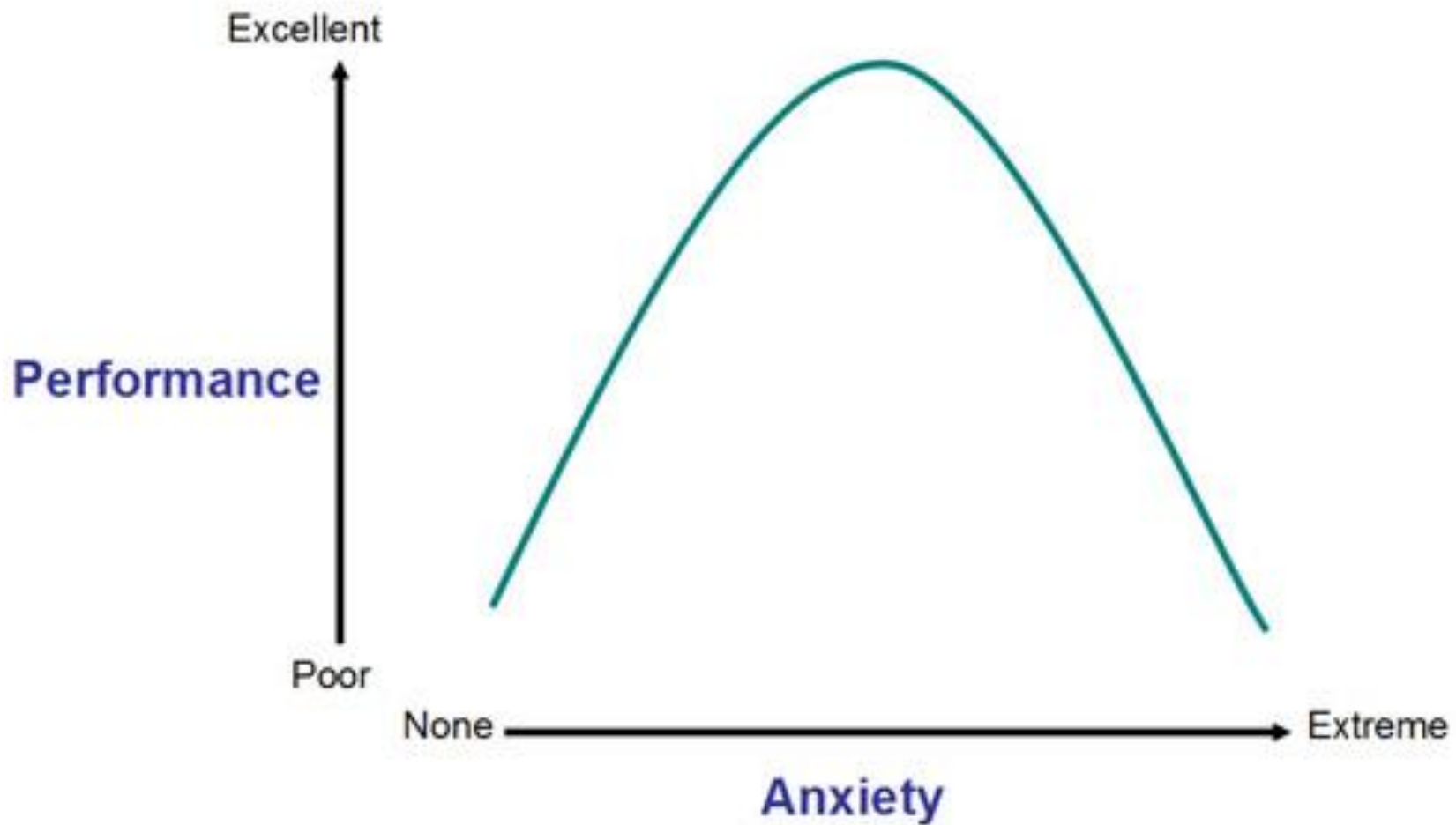
Desirable Difficulties



The Learning
Pyramid: Methods of
training and retention



Relationship between Anxiety & Performance



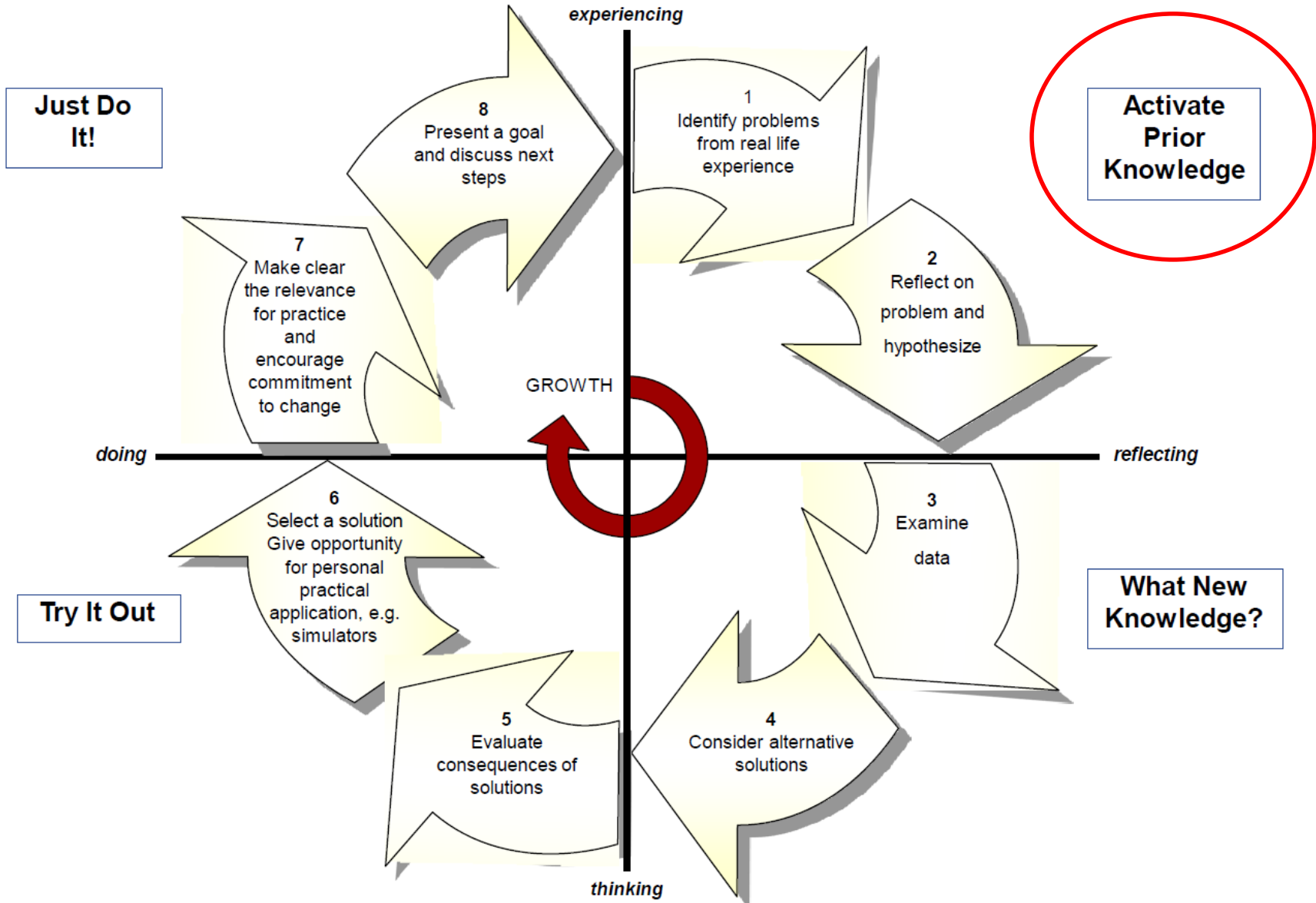
4 sections to this talk

- Strategies for Initial Engagement
- Strategies for Continued Engagement
- Applying this Talk to Your Life
- Commitment to Action

Reflection Exercise

- Think about an engaging lecturer, what do they do that makes them so engaging?

While Learners Prefer Working In Their Strongest Style They Should Be Encouraged To Work Through All Four



Which of the following are effective strategies for studying...

A. Highlighting

B. Mnemonics

C. Practice tests

D. Re-reading

E. Summarization

F. Spacing learning over time

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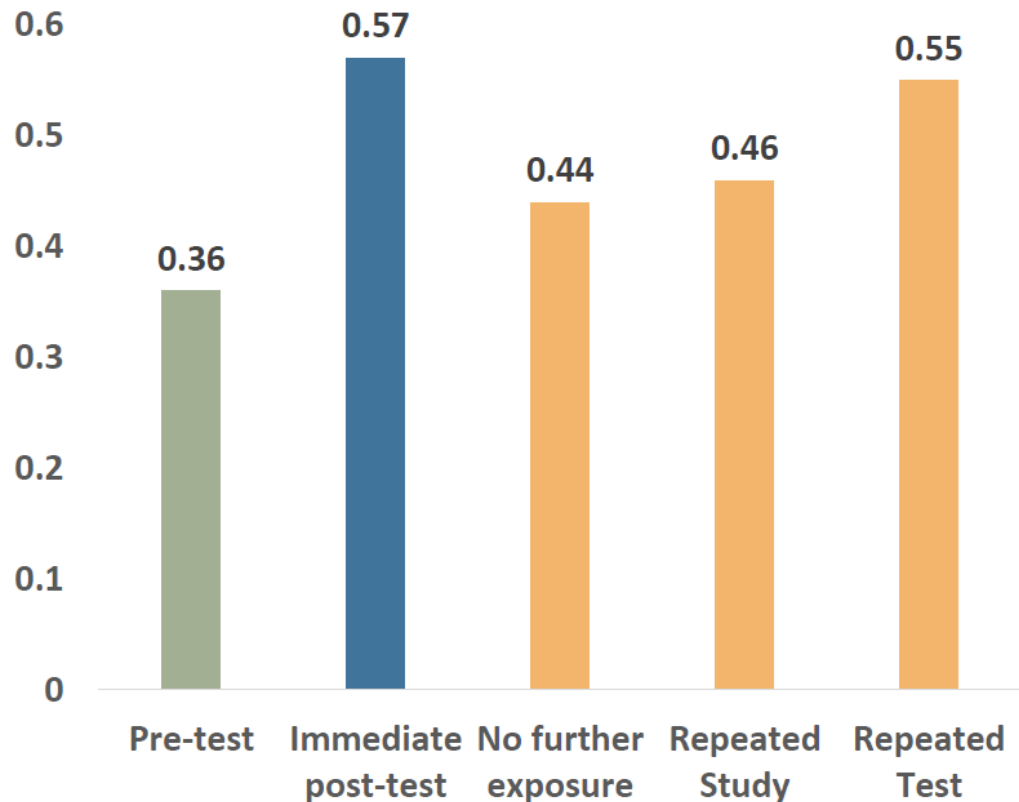


Importance of Questions

Participants in 4 AAN
CME Courses

All took pre and
immediate post tests
and final test 6mo later

Randomized to
repeated study,
repeated testing, or no
further exposure



What symptoms are common in NMDA R encephalitis?
(Choose all that apply)

- A. Seizures
- B. Frequent Emesis
- C. Abnormal movements
- D. Paralysis
- E. Psychiatric Disturbance
- F. Autonomic Instability
- G. Recent Viral Syndrome

(Hint: This is a learning objective)

Which test is more likely to be abnormal in NMDA R encephalitis?

A. MRI

B. EEG

C. LP WBC Count

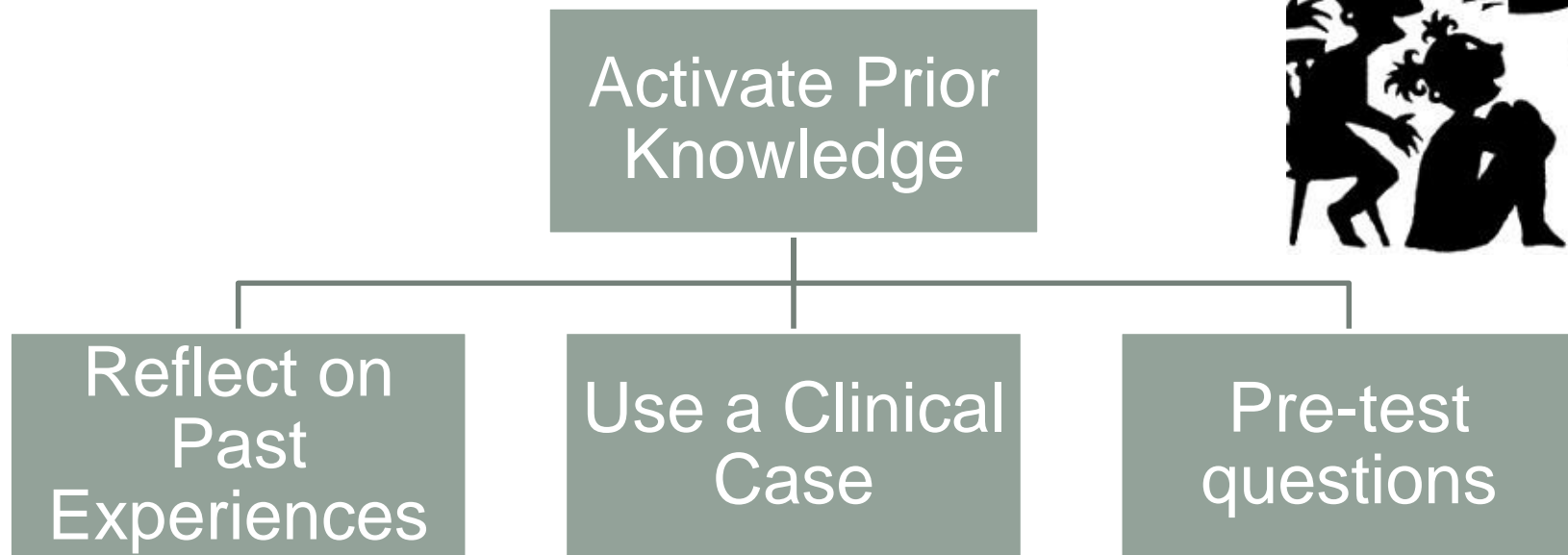
(Hint: This is a learning objective)

Fill in the Blank:

The gold standard for diagnostic testing is: _____

(Hint: This is a learning objective)

Strategies for Initial Engagement



Strategies for Continued Engagement

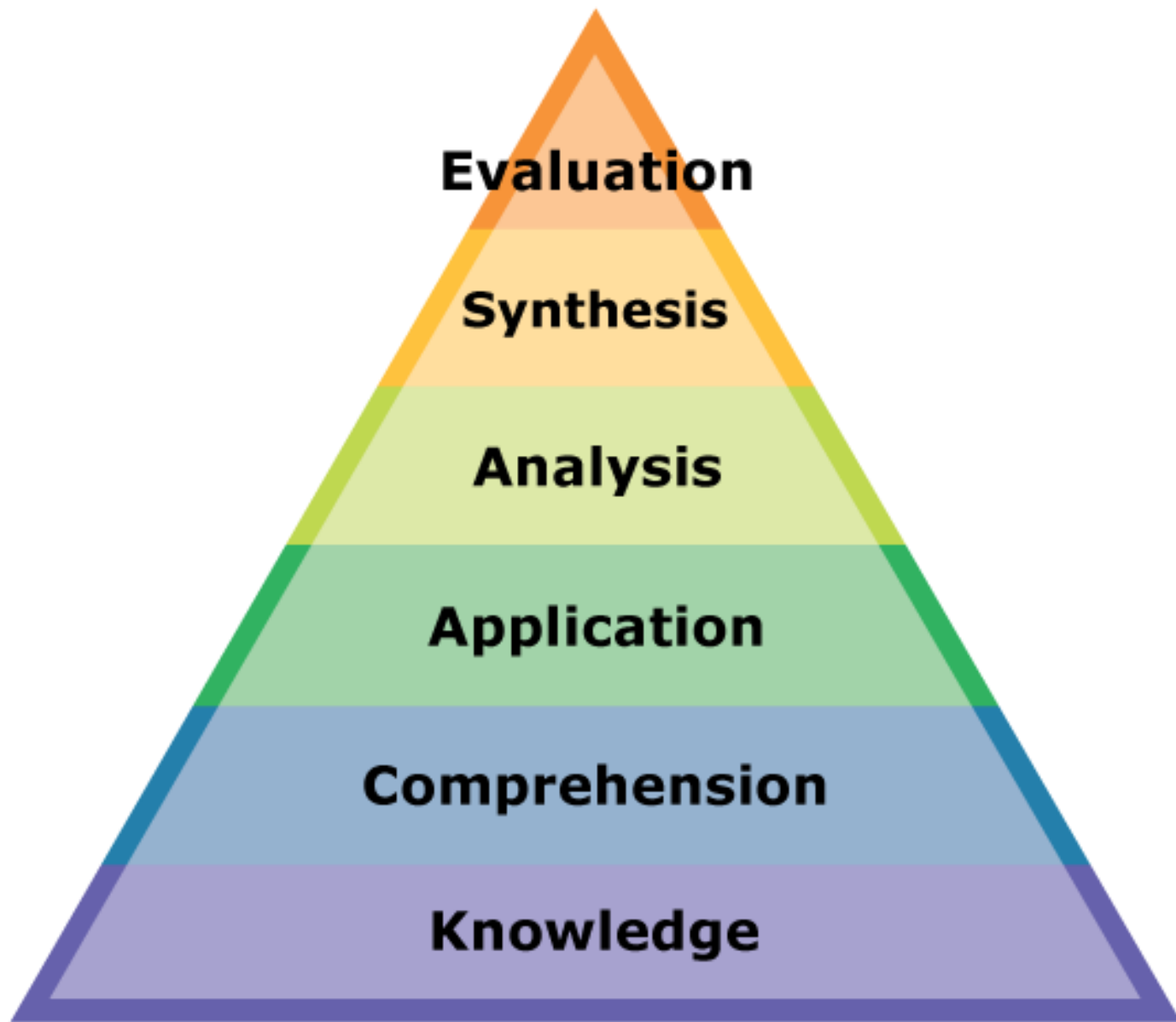


Strategies that increase learner participation



Active Learning Strategies

- Asking Questions and Think Pair Share
- Debate
- Peer Teaching
- Generation
- Compare and Contrast
- Reflection (choose last)
- More...
- Bonus: Self-Determination Theory



Favorite Questions

- Tell me how you are thinking about xxxx?
- Persuade me why?
- Compare and contrast X?
- Why?
- How?
- What if?

Clinical Case

- 6 week old presents to the Emergency Department with fever. Patient is non-toxic appearing.
- You are precepting a medical student in the Emergency Department who presents the patient to you nicely with a very logical plan following an evidence based guideline.

You want to enhance the student's learning by helping her develop her critical thinking by asking her some questions.

THINK PAIR SHARE

Clinical Case

You are precepting a student and you encounter the following clinical scenario:

- A. 6 week old presents to the Emergency Department with a bruise on his ear and concern for inflicted trauma
- B. 20 month old with bronchiolitis and worsening respiratory distress on the floor

Or choose your own!

THINK PAIR SHARE

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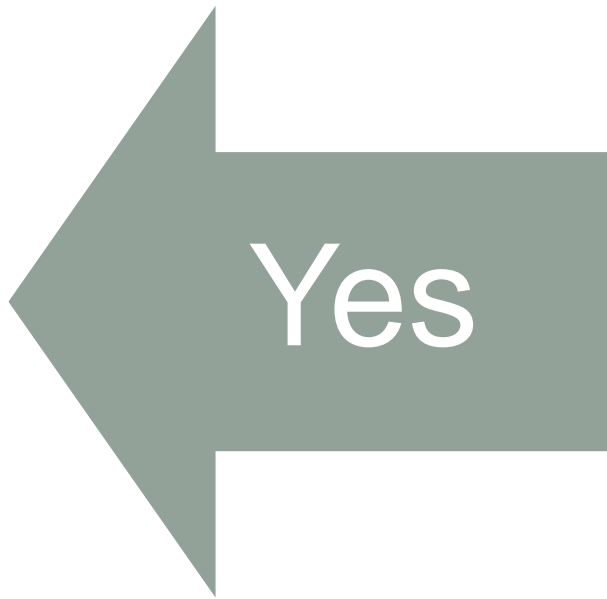
DEBATE

- Teachers should use the Socratic method



DEBATE

- 2-month old febrile neonates with a +u/a should receive a LP in the Emergency Department



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Peer teaching

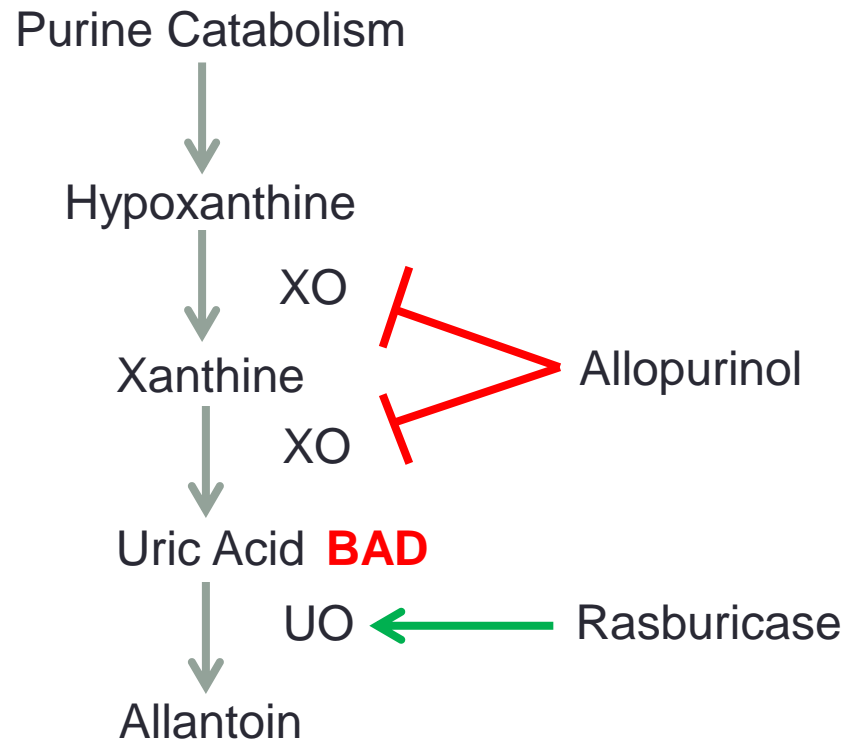


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GENERATION

- Design a therapy for tumor lysis syndrome



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Compare and Contrast

	Fever	Leukocytosis	Acute Onset	Psych Stressors	Peritoneal
Appendicitis					
Constipation					
Functional Pain					
Pancreatitis					
Torsion					

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More

- Muddiest Point
- Role Playing
- Problem Based Learning
- Games

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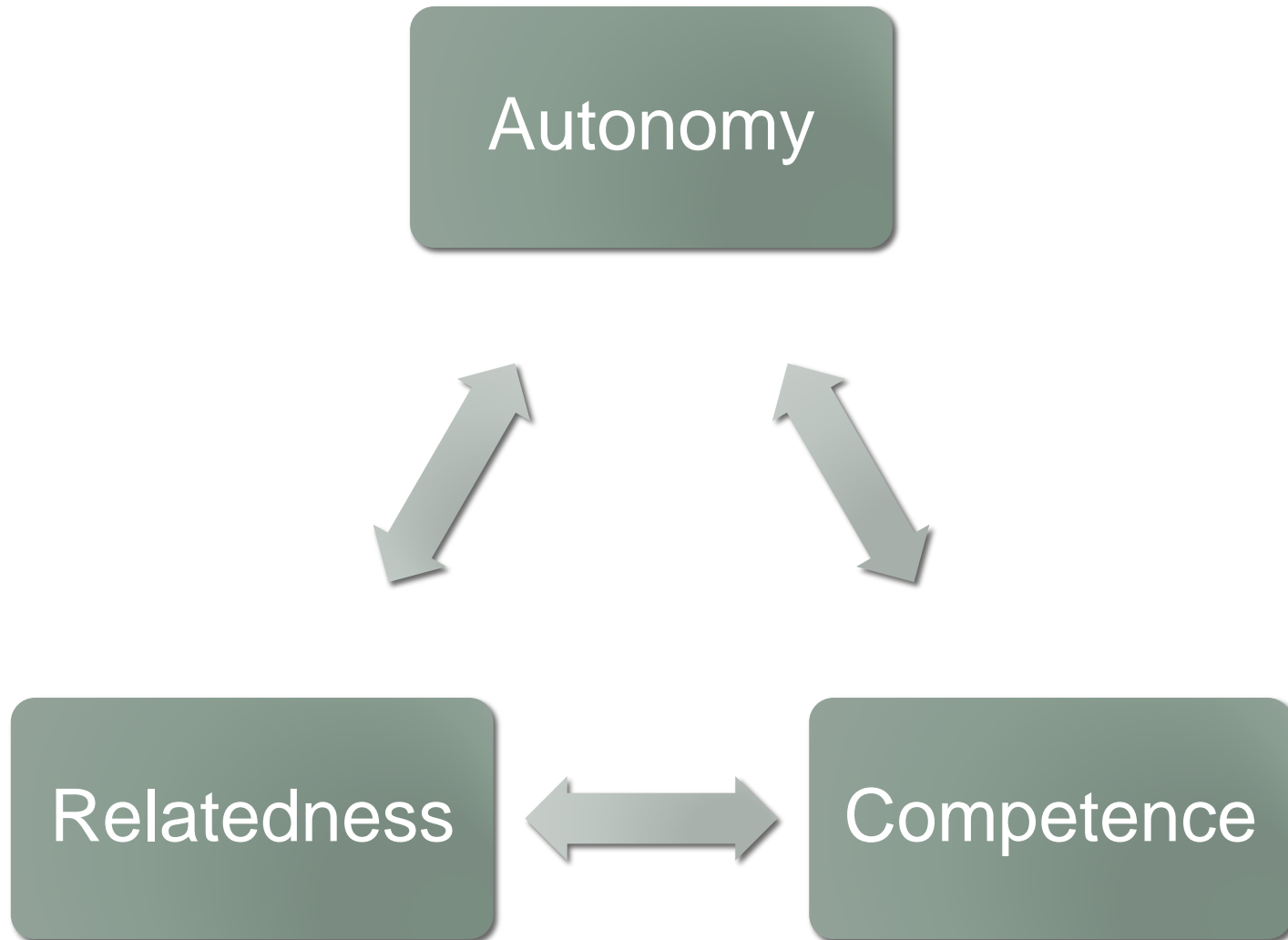
REFLECTION

1. “Identify one important concept, research finding, theory, or idea that you learned while completing this activity.” (analyzing)
2. “Why do you believe that this concept, research finding, theory, or idea is important?” (reflecting)
3. “Apply what you have learned from this activity to some aspect of your life.” (relating)
4. “What question(s) has the activity raised for you? What are you still wondering about?” (questioning).

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Self- Determination Theory



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Summary of Techniques

- Questions
- Quizzes
- Think Pair Share
- Peer Teaching
- Role Plays
- Simulation
- Team Based Learning
- Muddiest Points
- Debate
- Games
- Reflection (one minute paper)
- Compare and Contrast
- ETC!!!!!!



Applying this talk to your life...

Commitment to Action

Mentored Behavioral Experiment:

1. What active learning technique can you experiment with in next teaching session?
2. How can you measure whether you were successful?
3. Which colleague might you choose as a colleague-mentor to help in the process?