

# Cognition and Emotions in your Classroom

Elaine Kaye & Nicole Wilson

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CHEP Presentation



# Objectives



- Interpret the neuro-education research presented
- Evaluate teaching strategies grounded in neuro-ed research
- Develop a plan for integrating strategies presented into your teaching practice

“You can give a nice boost to cognition by tapping into emotion using your classroom techniques because emotion is already present in experience, perhaps even particularly so in cognition”

(Cavanagh, 2016 p.24)

# Agenda



- Overview of Research
- Pedagogical Strategies
- Curricular Strategies
- Assessment Strategies

Reflect and discuss to evolve your teaching practice.

**Emotions** = Internal Feelings + Physical Reaction + Social Expressiveness



**Emotions** = relatively *brief* affective *responses* to specific stimuli

**Moods** = last *longer* and reflect *subjective state* of wellbeing

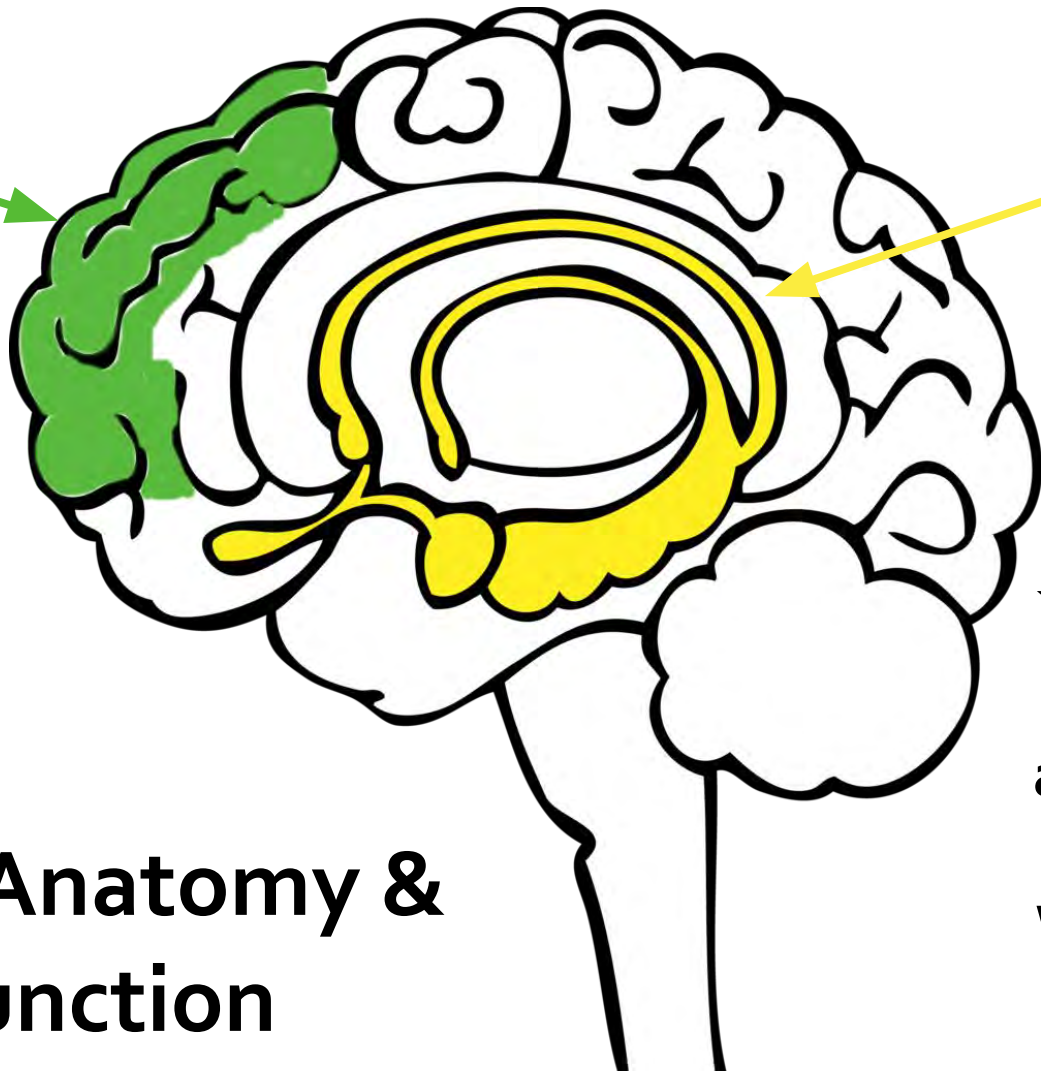
In the research *emotions* are often grouped by *effect* and *strength*



“Affect [emotions] are like gasoline which activates an engine - without gasoline, the engine stops; without emotion, purposeful thought ceases.”  
(Newton, 2018 p.29)



**Prefrontal  
Cortex**  
=  
"Thinking  
brain"



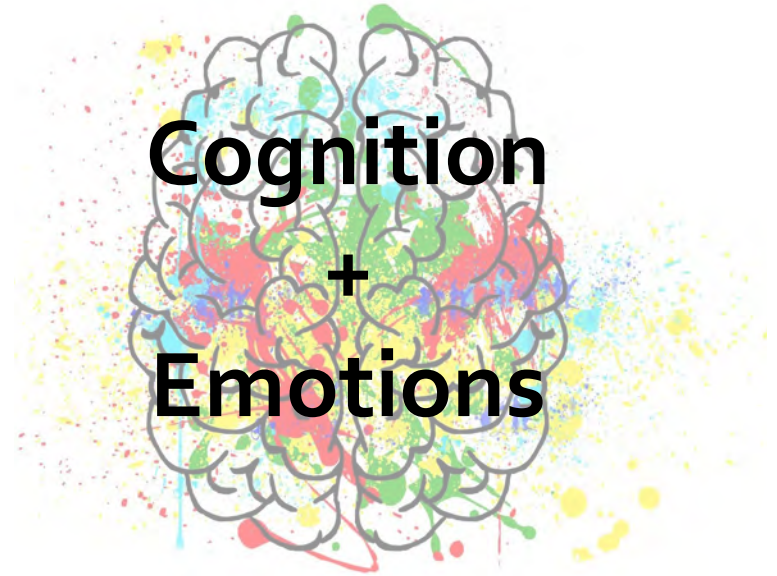
**Emotional  
Core = various  
elements that  
act as a  
gatekeeper**

**Lower brain =  
all the elements  
that make up  
"reactive brain"**

## **Basic Anatomy & Function**

“...tapping into emotion will harness our students’ attention, dominate their working memory resources, enhance their long-term memory consolidation, and fuel their motivation.”

(Cavanagh, 2016 p. 32)



***Consider a specific course, class lecture, or topic as your context for our activities and discussion throughout the session.***

# Exploring Pedagogical Strategies

*Key Terms: Affective crossover,  
Self-care, Emotional contagion,  
emotional labor, emotional  
authenticity, Positive attributes:  
optimism, enthusiasm, compassion*

## Your emotions matter



“In some ways, managing the emotional climate of your classroom is the most powerful step you can take to maximizing your students’ attention and motivation, which we know are the critical first steps to learning (Cavanagh, 2016 p. 108)



# Exploring Pedagogical Strategies

*Key Terms: Immediacy behaviors,  
Self-disclosure*



## Your behaviors matter

- **Immediacy behaviors** connect us
  - Smiling, using names, using appropriate humor
- **Self-disclosure**
  - Sharing personal experiences
  - Sharing your opinions
  - Sharing likes or dislikes
  - Content related self-disclosure (e.g. What was it like when you learned something new?)

# Exploring Pedagogical Strategies

*Key Terms: Prediction, Curiosity,  
Mystery, Mindfulness, and Interest*

## Designing Activities



- **Prediction**
  - Answer questions or anticipate outcomes before understanding content (Lang, 2015 p. 45)
  - Be sure to provide correct answers
- **Curiosity**
  - Spark curiosity with puzzles
  - Introduce knowledge gaps\*
  - Introduce mysteries
- **Mindfulness**
  - Encourage self-care
  - Create reflection opportunities
  - Activities to “calm the brain” (e.g. music, coloring, and meditation)

# Engaging with Pedagogical Strategies

*Reflect & Discuss*



Think about your context from earlier and review the **pedagogical strategies**.

Select one or two strategies and consider what this might look like in your work?

# Exploring Curricular Strategies

*Key Terms: Passion, Novice v. Expert Learners, Connecting neural networks*

## Build Connections



- **Content, objectives, resources**
  - Consider previous knowledge when selecting
  - “Neurons that fire together, wire together”
- **Passion Topics**
  - What makes you excited about your field?
  - Integrate new research findings, specific methodologies, historical figures, current events
- **Novice v. Expert Learners**
  - Activate prior knowledge
  - Consider providing scaffolding or framework of lecture materials

# Exploring Curricular Strategies

*Key Terms: Relevancy and Storytelling*

## All about me



- **Relevancy**
  - Know your learners
  - Use surveys to gather information
  - Ask to recall own experiences\*
  - Look for examples from movies, music, sports, campus life, or food.
- **Storytelling**
  - What voices or stories are not being told?
  - Use documentaries, biopics, and even social media

# Engaging with Curricular Strategies

*Reflect & Discuss*



Think about your context from earlier and review the **curricular strategies**.

Select one or two strategies and consider what this might look like in your work?

# Exploring Assessment Strategies

*Key Term: Feedback*

## Feedback and emotions



- Feedback should cover areas of improvement AND what students got right (particularly if a skill that was lacking)
- Respond to correct answers with harder questions
- Praise and validate willingness to contribute

# Exploring Assessment Strategies

*Key Term: Retrieval practice, formative assessment, low/no stakes assessments, confusion*

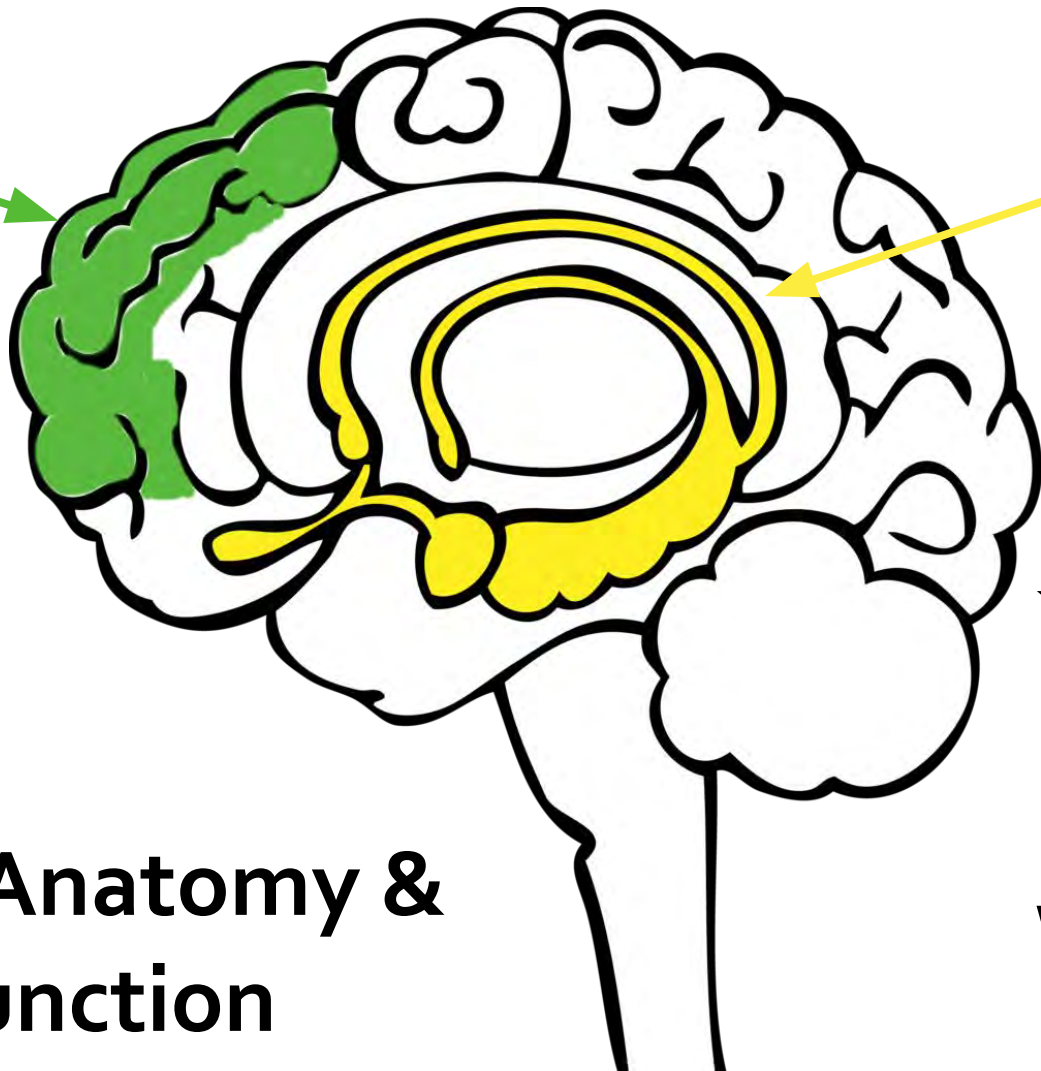
## Assessment activities



- **Retrieval practice**
  - Practice recalling information
  - Beginning of class open with questions from last class
- **Formative assessments**
  - Use frequently
  - Checking what they know (for you and them)
  - Pre-tests, check-ins, low/no stakes
  - Some confusion okay\*



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various  
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\_\_\_\_\_ = all  
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"reactive brain"

## Basic Anatomy & Function

# Engaging Assessment Strategies

*Reflect & Discuss*



Think about your context from earlier and review the **assessment strategies**.

Select one or two strategies and consider what this might look like in your work?

## Reflect and Discuss



Go back over your reflections on the various strategies and select one thing you will try to implement.

### **Consider:**

Where & how will you implement the strategy?

Who are the learners?

What will be the biggest hurdle or challenge and how could you overcome this?



# Resources



Scan & save this Google Document  
or Use this URL <http://tiny.cc/clkojz>

