Are your students really interested in STEM research? The problem of the mindset

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TEACHING/TRAINING DILEMMAS

- Teach Courses – “Endocrinology” and “Human Body and Brain”
- Advise- Undergraduates
- Research – Neuroendocrinology of Social Behavior
PROBLEM OF THE Mindset
PRACTICING/THINKING SCIENTIFICALLY

Scientific Method

- Identification of a problem
- Deliberation/hypothesis
- Plan/strategy/protocol
- Implementation/experimentation
- Evaluation/data analysis
- Conclusion/inferences

Scientific Mind

- Skepticism/questioning/reflection
- Deliberation/critical thinking
- Visualization (outcomes/obstacles)
- Re-evaluation (evidence-based)
MIND RETRAINING

Applying the Scientific Mind to Everyday Problems

Goal achievement, decision making, problem solving

• Skepticism/questioning/reflection

• Deliberation/critical thinking

• Visualization

• Reevaluation (evidence-based)
QUESTIONS ?????

1. Are we engaging students in an authentic process of discovery? Should we care?

2. Is mind training a necessity for research training?

3. Should mind training remain within the realm of general education?

4. How do we design a STEM curriculum that includes deliberate teaching of scientific thinking as well as scientific practice?
   • Positives
   • Negatives
   • Opportunities
   • Challenges

5. How do we evaluate scientific thinking?
How do we design a STEM curriculum that includes deliberate teaching of scientific thinking as well as scientific practice?

**Pros**
1. 
2. 
3. 
4. 
5. 

**Cons**
1. 
2. 
3. 
4. 
5. 

**Opportunities**
1. 
2. 
3. 
4. 
5. 

**Challenges**
1. 
2. 
3. 
4. 
5.