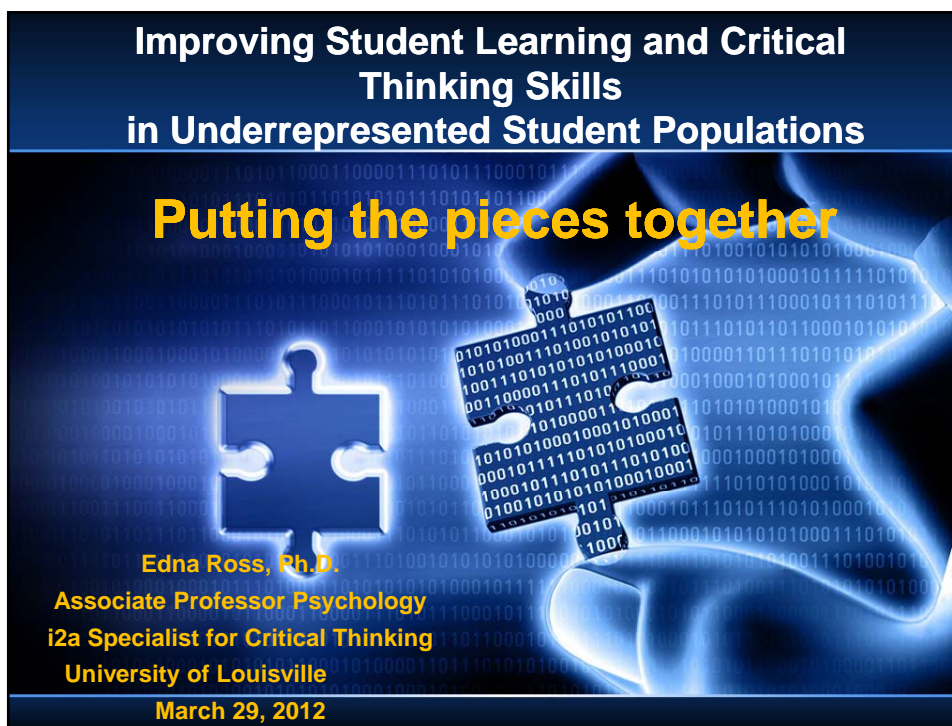


**Improving Student Learning and Critical Thinking Skills
in Underrepresented Student Populations**

Putting the pieces together



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Session Objectives

- Clearly define and discuss the relevance of metacognition in improving student learning outcomes
- Engage and work with concepts of metacognition and critical reflection
- Identify psychological triggers that can impede metacognition and critical thinking
 - Stereotype threat
 - External locus of control

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What is Metacognition?



- The process of thinking about your own thinking
- The active monitoring and regulation of your thinking
- Being aware of the “learning-relevant” properties of information or data”

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Metacognition is...

- Awareness and control of one’s thoughts.
- Self-regulation--including control of one’s behavior, motivation and affect, and thoughts related to thinking and learning.
- An important component of critical thinking

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Metacognition involves...

- ...thinking about, and being aware of, your thinking **while** you are thinking.



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Why is metacognition important?

- It allows conscious awareness and evaluation of specific aspects of our thought processes.
- It allows unconscious mental manipulations (thought processes) to become conscious and intentional



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Important!!

- Metacognitive skill levels tend to differentiate successful students from non-successful students
- At risk students tend NOT to engage in metacognitive thinking
- Metacognitive skills associated with successful learning outcomes **can be taught**

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What is critical thinking?

Critical thinking is thinking that is:

- **self-directed**
- **self-disciplined**
- **self-monitored**
- **self-corrective**

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Critical Thinking is

- ...thinking about your thinking while you are thinking
- in order to improve your thinking**

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Beware!



- Both metacognition and critical thinking can be impeded by:
 - Faulty mental sets**
 - Situations that trigger stereotype threat**
 - Situations that emphasize external personal characteristics**

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Faulty mental sets in introduction to psychology course

- All sources of information are equal
- “I don’t do well on multiple choice exams”
- ESP, and other paranormal phenomena are established facts
- Science doesn’t (can’t) apply to psychological phenomena
- I (my generation) are expert multi-taskers
- “All I have to do is come to class to get an “A” in the course”

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Why faulty mental sets cause problems

- Student arrive already full of ‘expert’ information
- You (and the content you present) are evaluated on the basis of what they already know
- Students tend to assimilate rather than accommodate new information
- Peer instruction and group discussions can sometimes further entrench **faulty** information and concepts

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Stereotype Threat

- Stereotype threat refers to the anxiety and reduced cognitive capacity that occurs as a result of being at risk of confirming a negative stereotype about one's group

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Stereotype Threat




- Has been shown to negatively impact academic performance and aspirations in
 - African American students
 - Hispanic students
 - Students from low socioeconomic backgrounds



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Reducing Stereotype Threat

- 
 • **Emphasize** an incremental view of intelligence (versus an 'entity' view)
- 
 • **Emphasize** high standards with assurances of capabilities to meet them
- 
 • **De-emphasize** threatened social identities
 - Completion of standard demographic questions **BEFORE** a test **INCREASES** stereotype threat
 - Completion of same standard demographic questions **AFTER** a test **DECREASES** stereotype threat

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Locus of control

- Concept introduced by Julian Rotter (1966)
- Maintains that the individual will attribute control to either internal or external loci
- Individuals who attribute control to situations **EXTERNAL** to them (outside of their control) are less successful than individuals who attribute control to situations **INTERNAL** to them (under their control).

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Questions??

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Shout Out!

5 ideas, insights, strategies or new concepts you are taking away from today's session!



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