Promote Student Retention By Building Critical Thinking Skills

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Welcome!

- General Introductions
- Housekeeping
- Warming-up

• What are We Doing this Morning?
Warm-up

• Introduce yourself to the person next to you & tell him or her where the polar cub is going...
Objectives

- Expand Knowledge of Critical Thinking through Better Understanding of 15 Metacognitive Skills
- Explore Ways of Improving Metacognitive Skills of Learners of all Levels
- Connect to Real-life
  - Education
  - Training
  - Work
Critical Thinking Evolves from Well Developed Metacognitive Skills

• Metacognitive Skills
  – Higher Order Thinking Skills
  – Executive Function Skills

• Learning About Learning

• Pertaining to the “thinking about thinking” in relation to mental processes of perception, memory, judgment and reasoning
Metacognitive Skills

- Each person has a card with a metacognitive word/definition or an example of the metacognitive skill
- Match words/definitions to examples of skills

**Clues:**
- There are 15 metacognitive skills
- Note the descriptor words used on the examples
“The key ingredient in achieving successful outcomes...is the linkage of learning to know with learning to do”

Metacognitive Skills

- Attention
- Memory
- Concentration
- Sequential Logic
- Abstract Thinking
- Critical Thinking & Insight
- Cognitive Flexibility
- Association
- Generalization
- Prioritization
- Systematic Planning
- Time Management
- Organization
- Frustration Tolerance
- Problem Solving
The Framing

Cognitive Skills

Life Skills
  Basic Skills
  Advanced Skills
  Metacognitive Skills
The New Taxonomy

• Self-thinking System
• Metacognitive System
• Cognitive System

Knowledge

Self-System Thinking: Examination

- Importance
- Emotional Response
- Efficacy
- Motivation
Metacognition Defined...

Metacognition is the awareness of one’s own cognitive processes and efficient use of this self-awareness to self-regulate these cognitive processes (Shimamura, 2000)
Importance To Learners Who Have Special Learning Needs...

• **Must be Taught**
  – Difficult to learn through modeling, observation, and trial & error

• **Application in Other Environments**
  – Not automatic
  – Unconnected
  – Abstract

I Can Use This Skill Tomorrow At Work...
How Do We Do That?

- Daily Through
  - Activities
  - Puzzles
  - Games
  - Pictures
  - Discussion
  - Exploration
Connecting The Warm-up Activity to Metacognitive Skills Development...

• Which metacognitive skills did it take to tell where the Polar Cub was going?
• Which did it take to introduce yourself?
Easy Does It...
Advertising

• Content Analysis
  – Look at the ad
  – What overt messages does the advertiser want you to see?
  – What messages are being sent?
  – Are there hidden messages?
  – What is the ad really saying?
The Wheels of Life
Hobbies & Interests

• Raise one hand
• On my count of 3 point to a person in your team
• The person with the most hands pointing to them is the “learner of interest”
• Learner: describe favorite hobby or interest
• Team: Identify what metacognitive skills it takes to perform & enjoy that hobby or interest
Turn to a Partner & Tell The Following:

• If you could meet a “star” who would it be and why?

• What was your first job that you got paid to do?

• What metacognitive skills are you using for these two activities?
Reading Comprehension Questions

• Memorizing
• Paraphrasing
• Interpreting
• Applying
• Analyzing
• Synthesizing
• Evaluating
**Metacognition: The Connector**

Reading Comprehension

Describe a picture that relates to the main idea of a story to be read

Question: What do you think the writer was really trying to convey?

Draw a picture of the most important detail or main idea of story

- Retrieval & memorizing
- Association
- Paraphrasing
- Interpreting
- Analyzing
- Goal planning strategy
- Critical thinking
- Problem solving
Metacognition: The Connector

Math Operations and Problem Solving
Learn musical patterns like the Do, Re, Mi song
Create scenarios requiring estimation
Do puzzles
Analyze pictures
Do logic problems & brain teasers

• Concentration
• Association
• Sequential Logic
• Systematic Planning
**Metacognition: The Connector**

- Writing style, structure and expressions
- Story boards
- Picture analogies
- Thinking scenarios
- Mind maps
- Organization
- Sequential logic
- Association
- Abstract thinking
- Critical thinking/insight
**Application In Your Environments**

- *Discussion*...
  - What do you do now to enhance or foster metacognitive skills development?
Meeting Student Needs...

• Identify the Top 3 Metacognitive Skills Your Learners Lack?

• What will you do improve skills?
  – Be specific about methods & materials
Metacognitive Curriculum

- **Introduce a M-Skill per week**
  - **Brainstorm** when, where, how your student has used the skill
  - **Have student describe in various ways**
    - Demonstration, written, record, verbally, pictures, symbols
**Metacognitive Curriculum**

- **Discuss** what it means to be proficient in the M-Skill
  - Get comment from student
  - Give examples & scenarios
**Metacognitive Curriculum**

- **Applying the M-Skill**
  - Provide activities that use the skill as a primary skill
    - Puzzles, games, paper pencil activities, computer generated activities, scenarios...
  - Have student share what was learned & observed
Metacognitive Curriculum

• Integrating the M-Skill
  – When working on basic, life, pre-employment & other skills
    • Concretely integrate components of the M-Skill being used
      – Show by examples, models, & illustration
      – Demonstrate the use of the M-Skill
      – Point out & discuss
  – Student acknowledges & reviews M-Skill as component
    • What was being taught
    • What was being learned
**Metacognitive Curriculum**

- **Generalizing the M-Skill**
  - Wrap up with a discussion
  - Where & how would student use the M-Skill learned outside the current classroom/program…
    - Home
    - With children
    - Grocery shopping
    - Looking for work
    - Etc.
Wrap-up & Feedback

• Questions
• Next Steps
• Evaluation

Expect Success: Every Classroom Every Student, Every Environment, Every Day!

Have a Nice Day
Thank You!

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Mission

Competent, effective services designed to Maximize Human Potential & Create Productive Environments