Teaching and Assessment of Metacognition

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Framing the Conversation
Introduction and Learning Outcomes

- A clear understanding of metacognition and how it intersects with information literacy and critical thinking
- Ideas for communicating how these three concepts relate to one another
- Strategies for reflection on your own teaching and assessment practices
- Tangible concepts to discuss with your teams
Assumption

Librarians are uniquely equipped to work with students and to partner with teachers and faculty at all levels of education to provide support and expertise regarding the incorporation of information literacy, critical thinking, and metacognitive skills among all our students.
Benefits of Metacognition

- Increase a student’s confidence
- Expand reach of information literacy goals
- Transference
Why Metacognition?
What Is Metacognition?
Wordle

- **Meta**: “beyond” or “on top of” [Greek]
- **Cognoscere**: getting to know [Latin]
“Metacognitive knowledge consists primarily of knowledge or beliefs about what factors or variables act and interact in what ways to affect the course and outcome of cognitive enterprise. There are three major categories of these factors—person, task and strategy.”

-Flavell, 1979
Person - what am I bringing to enterprise?
Task - what steps do I need to take within this enterprise?
Strategy - how do I employ those steps to accomplish this enterprise effectively?
IF YOU'RE HAPPY AND YOU KNOW IT
YOU HAVE METACOGNITIVE AWARENESS
Information Literacy- Our Favorite Thing
Information Literacy

AAC&U, 2013
- Identify information need
- Locate and Evaluate
- Effectively and responsibly use it

ACRL, 2016
- Reflective discovery of information
- Understand how information is produced and valued
- Creation and use of new knowledge
Information literacy is a cognitive task which takes place to solve a problem as well as a conceptual approach to knowing

-McCoy, 2022
Connecting the dots
Practical Metacognition

• Evaluation

• Reading and recall strategies,

• Realizing when a thinking path is not beneficial to a project,

• Repair strategies
Deep Dyve
Metacognition Cycle

1. Plan the Approach
2. Apply Strategies
3. Assess the Task
4. Reflect
5. Evaluate strengths and weaknesses
So many assumptions....

Learners must:

- Rely on previous knowledge
- Need to identify gaps in knowledge
- Know which techniques to use
- Understand how to interact with the information they find
Common Blocks

- Time
- Access
- Format
Examples
You are already doing it!
Reflection & Repair
Session Modification

Note-taking strategy during information literacy instruction
Assessment Modification

Exit survey changes to include:

- Recall (task)
- Imagine action (strategy)
- Feelings (person)
Lesson Plan

The goal of the lesson is to orient students to what the research process is, its components, and how the library can help them through that process.
Question Classification Types

1. Memory: recall, recognition
2. Translation: present information in a different form
3. Interpretation: identify and explain relationship
4. Application: solve, clarify, or transfer knowledge to another situation
5. Analysis: examine evidence and reach a conclusion
6. Synthesis: use divergent and creative thinking to solve a problem
7. Evaluation: make a judgement concerning worth, accuracy, or importance

*based on Bloom’s Taxonomy of Cognitive Objectives*
Brief Bibliography


Lesson Plan Example from Presentation

• Library Orientation using Metacognition
Thank You!

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