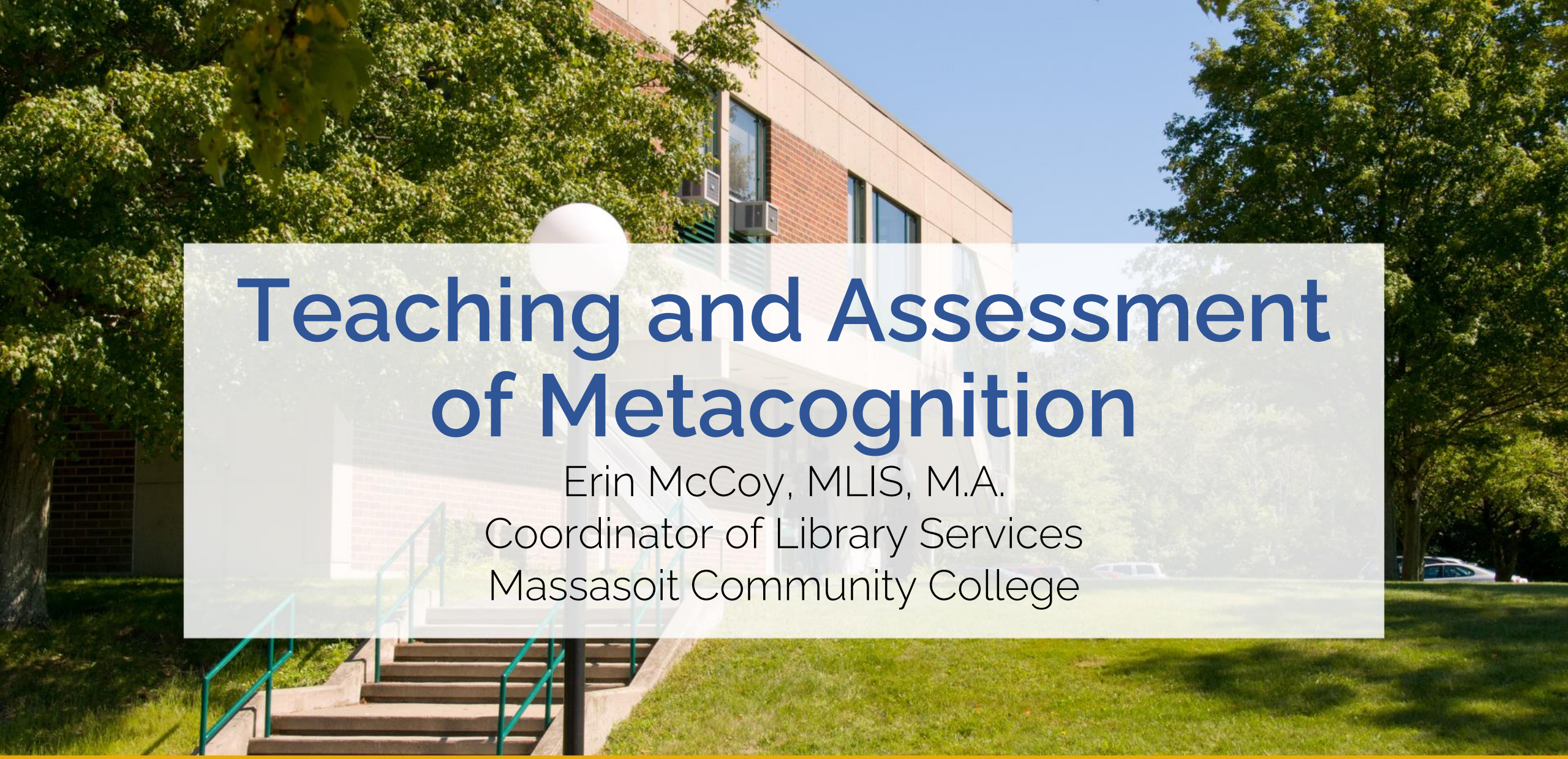

Teaching and Assessment of Metacognition

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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

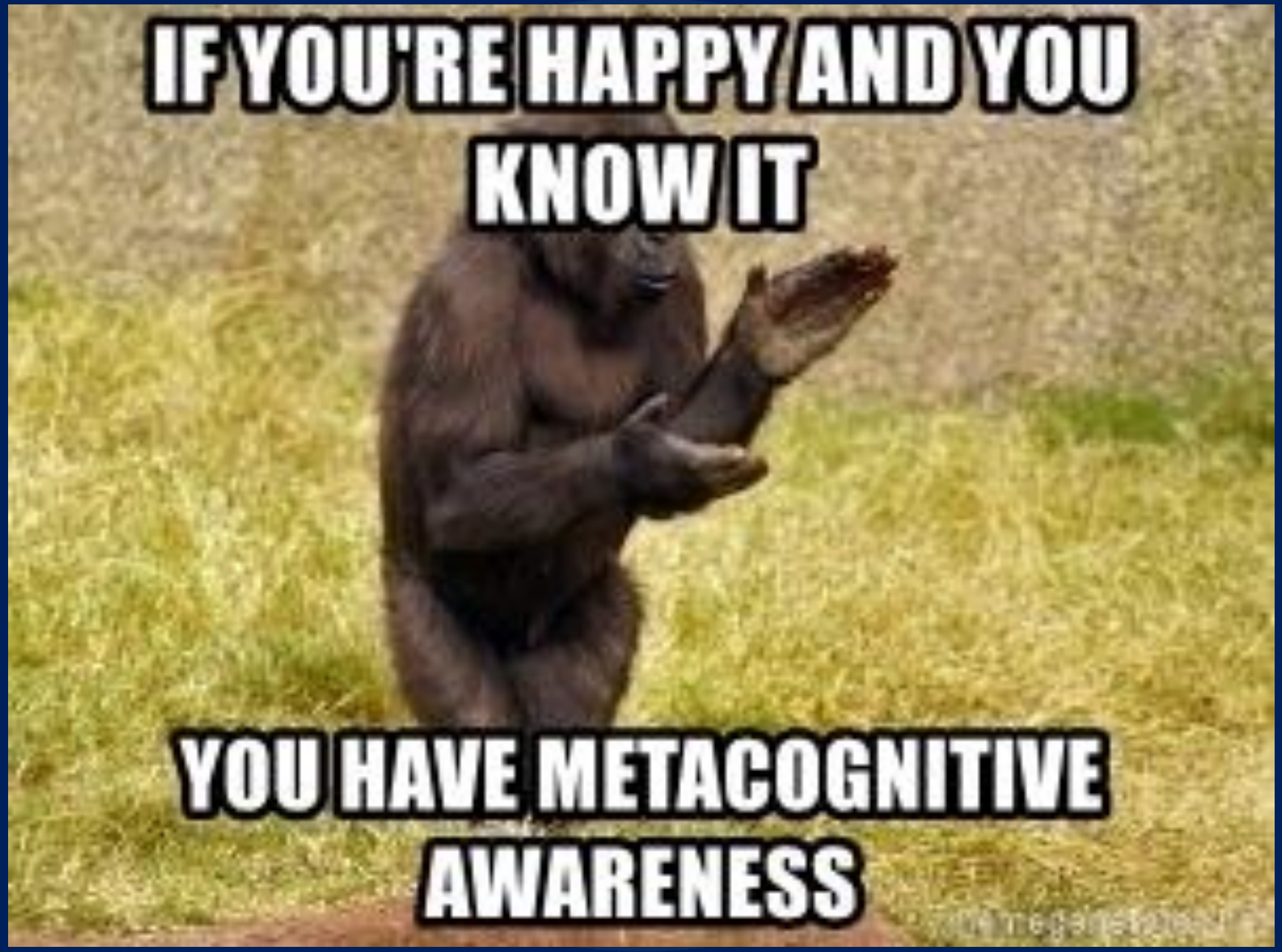
- **Meta**: “beyond” or “on top of” [Greek]
- **Cognoscere**: getting to know [Latin]

"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

More…

- 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

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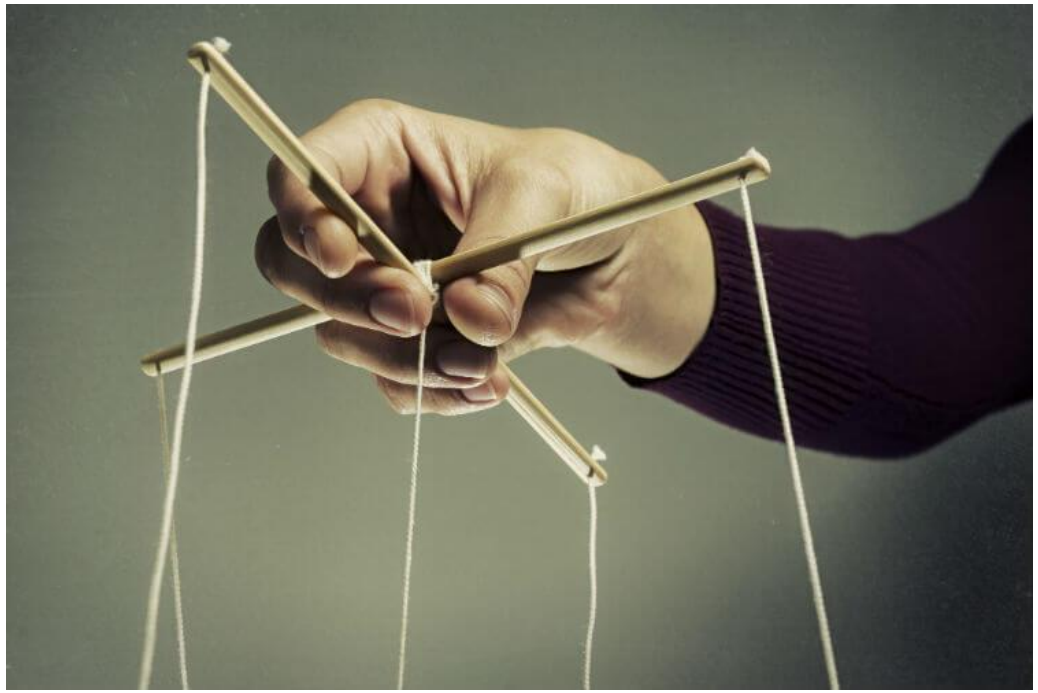
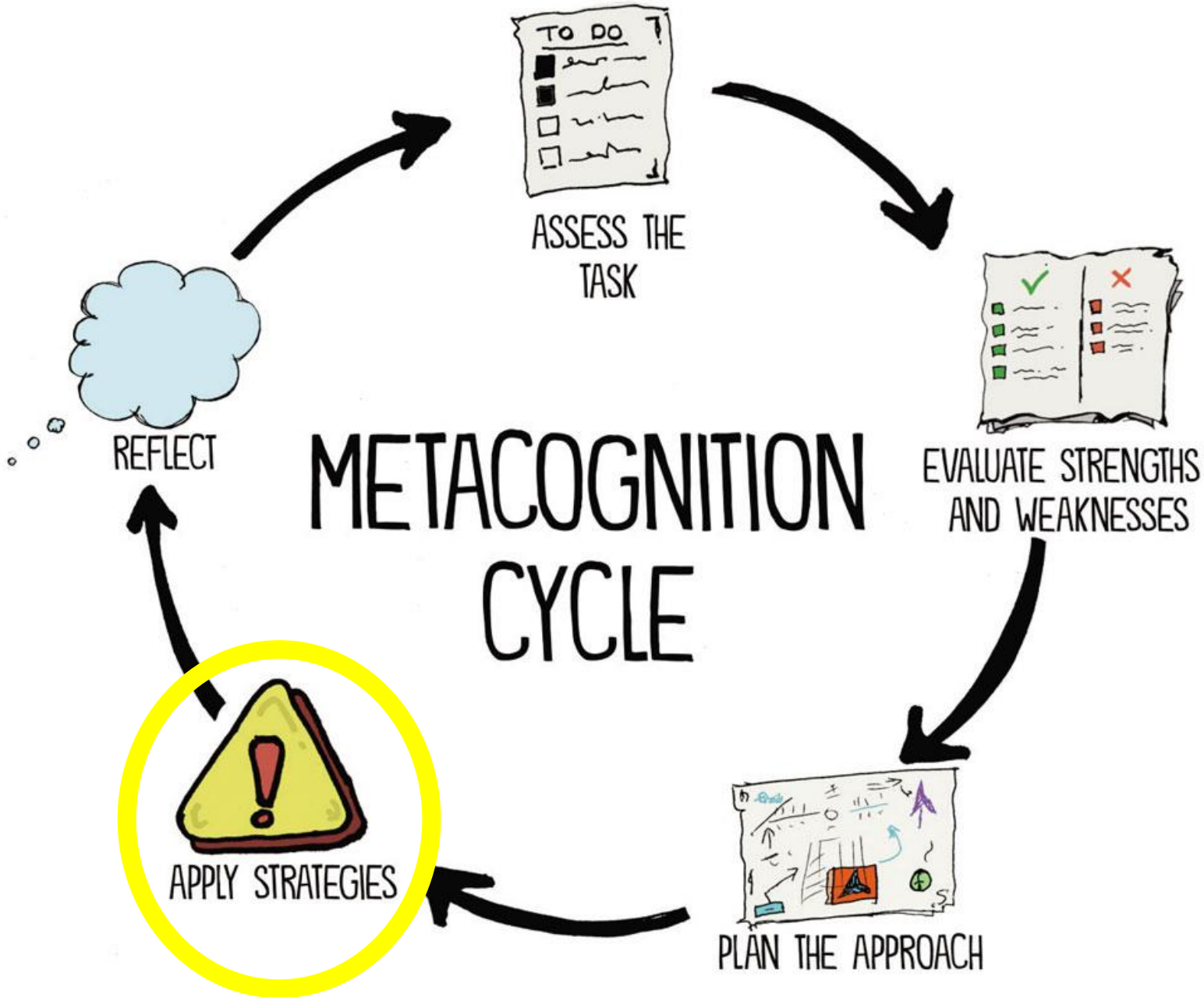
Connecting the dots



Practical Metacognition

- Evaluation
- Reading and recall strategies,
- Realizing when a thinking path is not beneficial to a project,
- Repair strategies

Deep Dyve


TO DO
ASSESS THE TASK
EVALUATE STRENGTHS AND WEAKNESSES
PLAN THE APPROACH
APPLY STRATEGIES
REFLECT
METACOGNITION CYCLE

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

Assessment

Common Blocks

- Time
- Access
- Format

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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)

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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.

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Question Classification Types

1. Memory: recall, recognition
2. Translation: present information in a difference 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 createive 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

- Flavell, J. (1979) “Metacognition and Cognitive Monitoring; a new area of cognitive-developmental inquiry.” *American Psychologist*, 34 (10). 906-911.
- McCoy, E. J. (2022). Teaching and Assessment of Metacognition in the Information Literacy Classroom. *Communications in Information Literacy, 16* (1), 42–52. https://doi.org/10.15760/comminfolit.2022.16.1.5

Lesson Plan Example from Presentation

- Library Orientation using Metacognition

Thank You!

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