

Navigating Difference with Metacognition: Facilitating Metacognitive Practices through Writing

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Overview

- Basics of Metacognition
- Metacognition & Transition
- Teaching for Metacognition

Part 1: Basics of Metacognition

What has recent research taught us?

Cognitive & Educational Psychology

- Metacognition is a “fuzzy concept” that consists of two main components and a number of additional factors (Scott & Levy, 2013).
- Metacognitive knowledge may compensate for low ability or lack of prior knowledge (Schraw, 1998, p 117).
- Metacognitive development is necessary for advanced, critical, problem-solving, but it may not develop without guidance (Kuhn & Dean, 2004).

Basics of Metacognition

Two key components to Metacognition:

-Metacognitive Awareness: awareness of a task and of thinking and learning strategies;

-Metacognitive Regulation: use of metacognitive awareness to monitor and control thinking and learning.

(Hacker; Negretti & Kuteeva)



Reflection

Self-Assessment

Self-Efficacy

Emotional
Engagement

Help-Seeking
Behavior





What has recent research taught us?

Writing Studies

- Metacognition is essential for knowledge transfer across contexts (Beaufort, 2007; Silver, 2013; Yancey, Robertson, and Taczak 2014).
- Metacognitive awareness and regulation are both necessary for rhetorically effective writing (Negretti, 2012; VanKooten, 2016).
- Metacognition is social: students make connections between prior learning, present exigencies, and future goals (Jarratt, Mack, Sartor, and Watson 2009).

Metacognition & Memory

- Memories are not stable: Memory is not stored in a specific location in the brain but is “a *pattern of activation* that is distributed over many neural connections” (Foertsch, 1995, p. 367).

2 types of memories:

- Episodic: knowledge that is tied to a particular context in space and time, such as riding in your uncle’s car last summer;
- Semantic: generic bits of knowledge or an entire class of entities, such as knowledge of cars (p. 365).

Metacognition & Memory

Tier One: Sensory Modes
(i.e. hearing, taste, touch, movement, scent, sight)

Tier Two: emotional/affective, linguistic, spatial modes

"modality is a stronger associative bond than category seems to be, and [...] perhaps modality association occurs because it is a deeper underlying mechanism than category" (Sulzen, 2001, p. 15).

Pedagogical Memory

Jarratt, Mack, Sartor, Watson (2009):

“a process of remembering writing not tied to a single writing class or written product and shaped, but not wholly determined by, the discourses and strictures of institutional assessment. Pedagogical memory comes from individual students, but ... it is produced from a broadly shared, collective experience" (49-50)

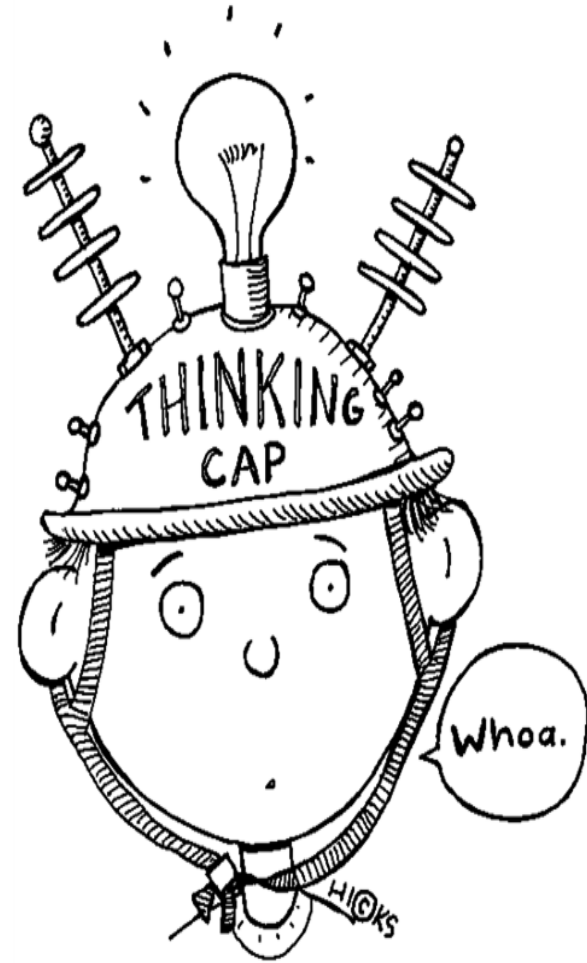
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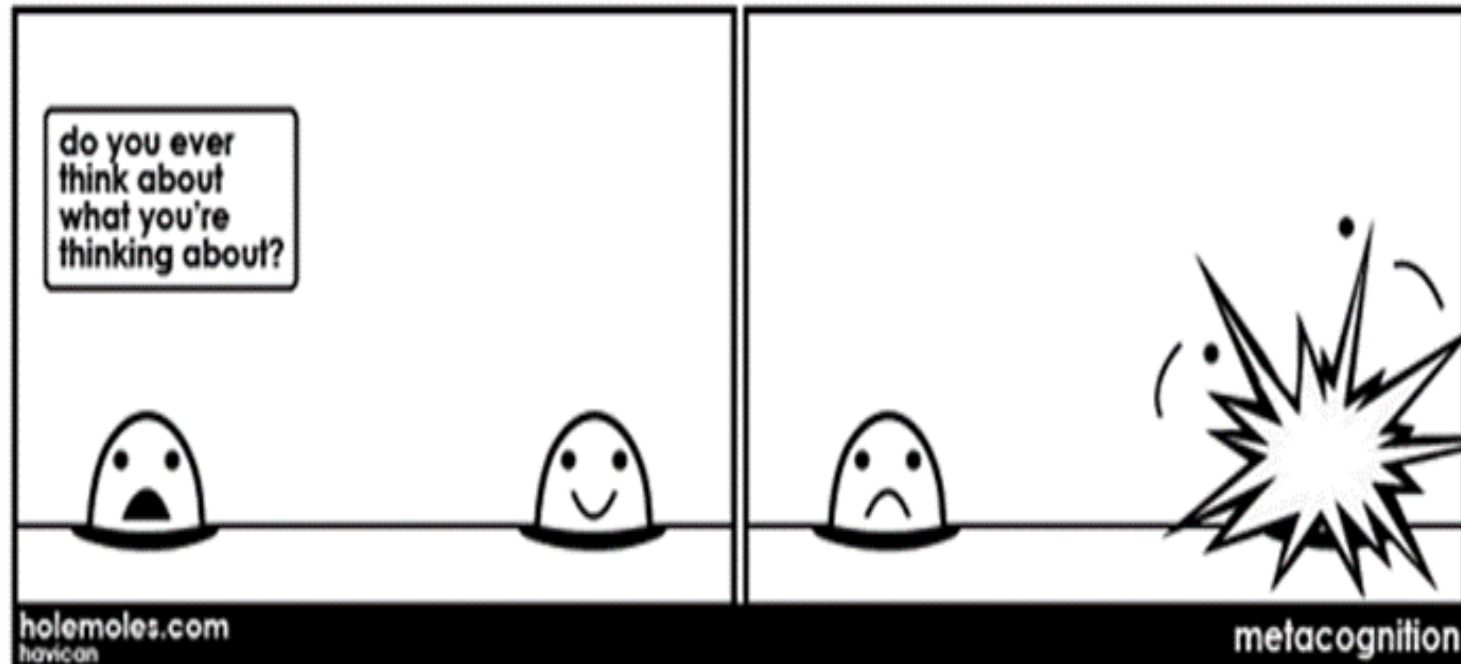
Why Does Metacognition Matter?

- **For researchers**, metacognition allows students to tell us about their thinking, learning, and writing processes (Yancey, 1998).



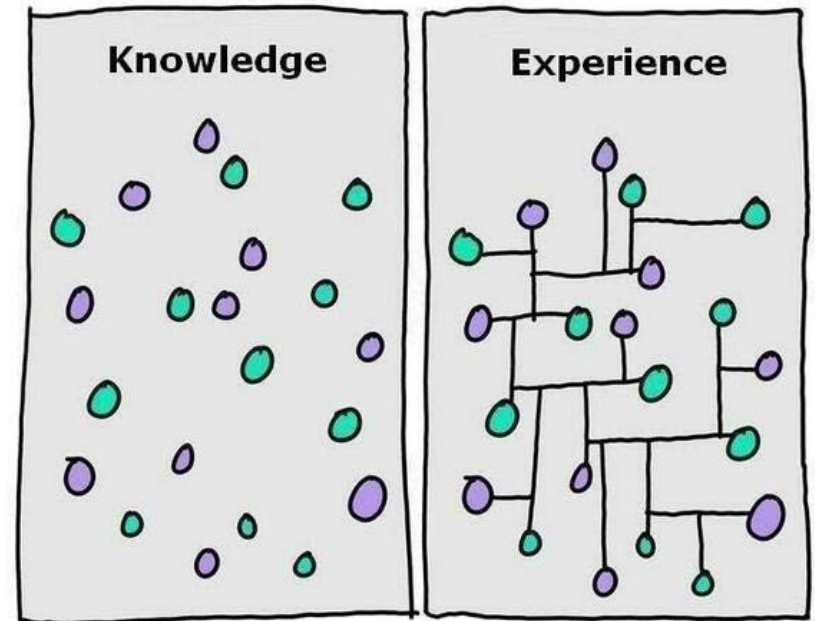
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- **For writing instructors**, metacognitive moments give us a glimpse into how our students are thinking and learning and gives us opportunities for intervention (Wardle, 2012).



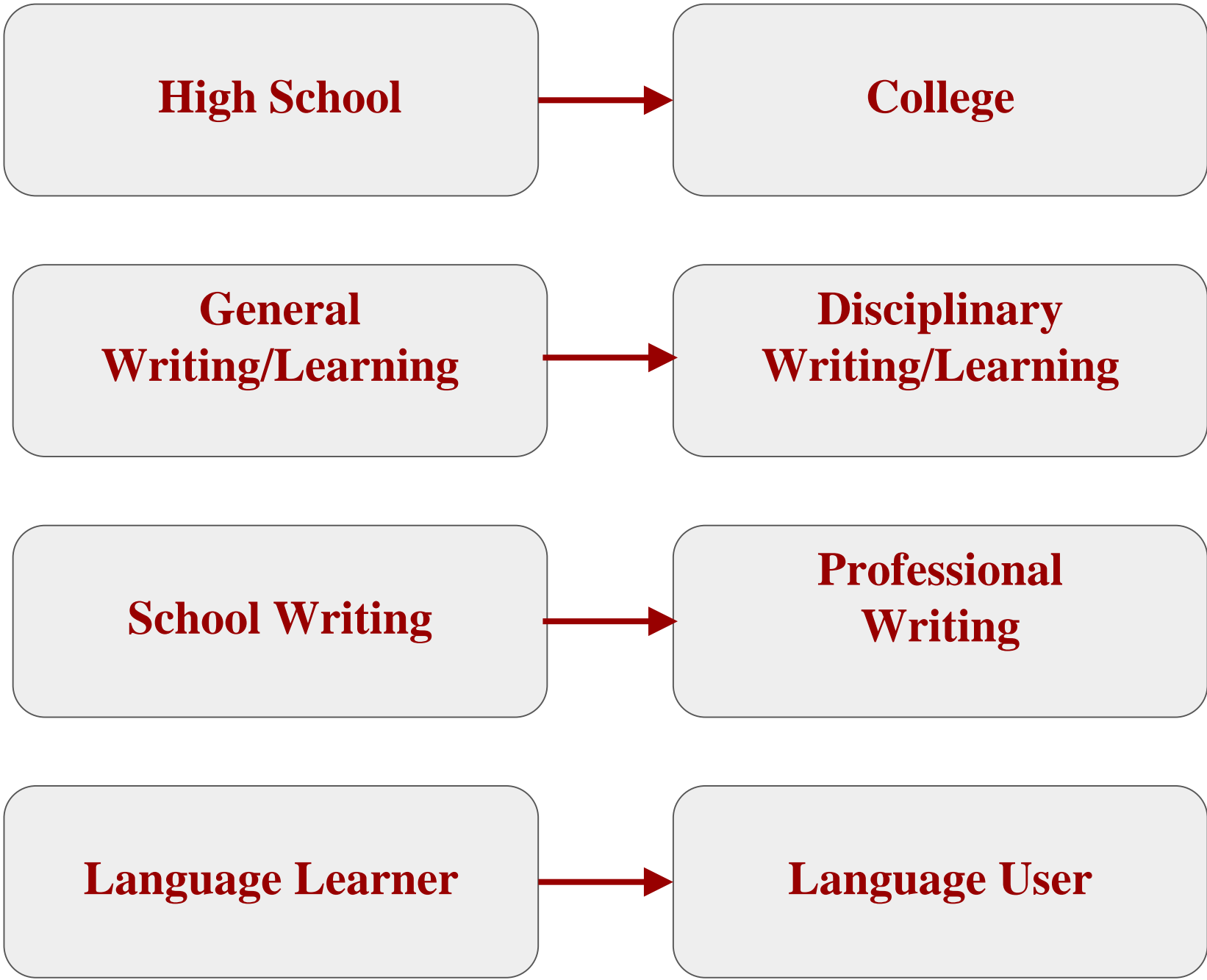
Why Does Metacognition Matter?

- **For students**, metacognition enables them to reflect upon their prior knowledge and consider how it might be useful in current and future writing and learning contexts (Jarratt, Mack, Sartor & Watson, 2009; Yancey, 1998).



Part 2: Metacognition & Transition





“Consequential Transitions”

- Transition: "developmental change in the relation between an individual and one or more social activities"
- Consequential: "when it is consciously reflected on, struggled with, and shifts the individual's sense of self or social position"

(Beach, 2003, p 42)

Reflective struggle is key to learning and a force for change:

“Consequential transition is the conscious reflective struggle to propagate knowledge linked with identity in ways that are consequential to the **individual becoming someone or something new**, and in ways that contribute to sociogenesis; the **creation and metamorphosis of social activity** and ultimately, society” (Beach, 2003, p 57).

Writing programs often ask...	A metacognitive lens asks...
How much grammar feedback do we give, and when?	How can students develop their own self-editing skills?
How do we account for students' ideas and cultural background while still meeting university expectations?	How can we account for our students' linguistic and cultural resources as a foundation for their success?
How do we determine which students need support and how do we direct them to the appropriate resources?	How can students learn about available resources and when and how to make use of them?
Are multilingual students best served in separate courses designed for them?	How can we create classrooms that are inclusive of all students, no matter their cultural or linguistic background?

Identifying Metacognition: Metacognition Framework

How do we recognize, evaluate, and teach metacognition?

Integrated
Reflection

Academic
Dispositions

Emotional
Engagement

Recognition and
Use of
Strategies

Data Set

Table 3.1: Final <i>Writing Ready</i> Student Essay Distribution		
Class	Number of student writers in study	Total number of essays
CB	12	24
CC	11	22
CD	13	26
CE	15	30
CF	10	20
CG	11	22
CJ	11	22
CM	12	24
Total – 8 Classes	95	190

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Part 3: Teaching Metacognition: Metacognition Framework

How do we recognize, evaluate, and **teach** metacognition?

Integrated
Reflection

Academic
Dispositions
Active Learning

Emotional
Engagement

Recognition and
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Integrated Reflection

Use reflective writing and discussion as a pre-reading activity to **activate prior knowledge**.

After introducing a writing assignment, invite students to reflect back on a time when they had a **similar** writing assignment, **how they attempted it**, how **successful** they were, and what they might **bring** to this new writing event.

As an instructor, incorporate **your own reflections** into the class, modeling reflective practice and building trust: share stories of your literary, writing, or learning history.

Emotional Engagement

Invite students to examine their emotional relationship with writing by assigning **low-stakes writing**, responding with encouraging feedback.

Open up discussions of “difficulty,” “failure,” and “resistance” by inviting students to remember moments of struggle, share them with a partner, and then create a list with the class. Then, do the same with “ease,” “success,” and “resilience.”

Emotional Engagement

Encourage students to “**fail forward**” to build resilience: have students describe a moment of difficulty and then brainstorm ways they might solve similar problems in the future.

Foreground difficulty in course design: scaffold challenging learning activities early in the term so that students have ample opportunity to celebrate success, learn (and rebound) from failure, and continue to practice effective strategies.

Developing Strategies

Encourage students to **seek help** on their writing through visits to writing centers, utilizing office hours, and group conferences, later **reflecting** on how the visits were useful.

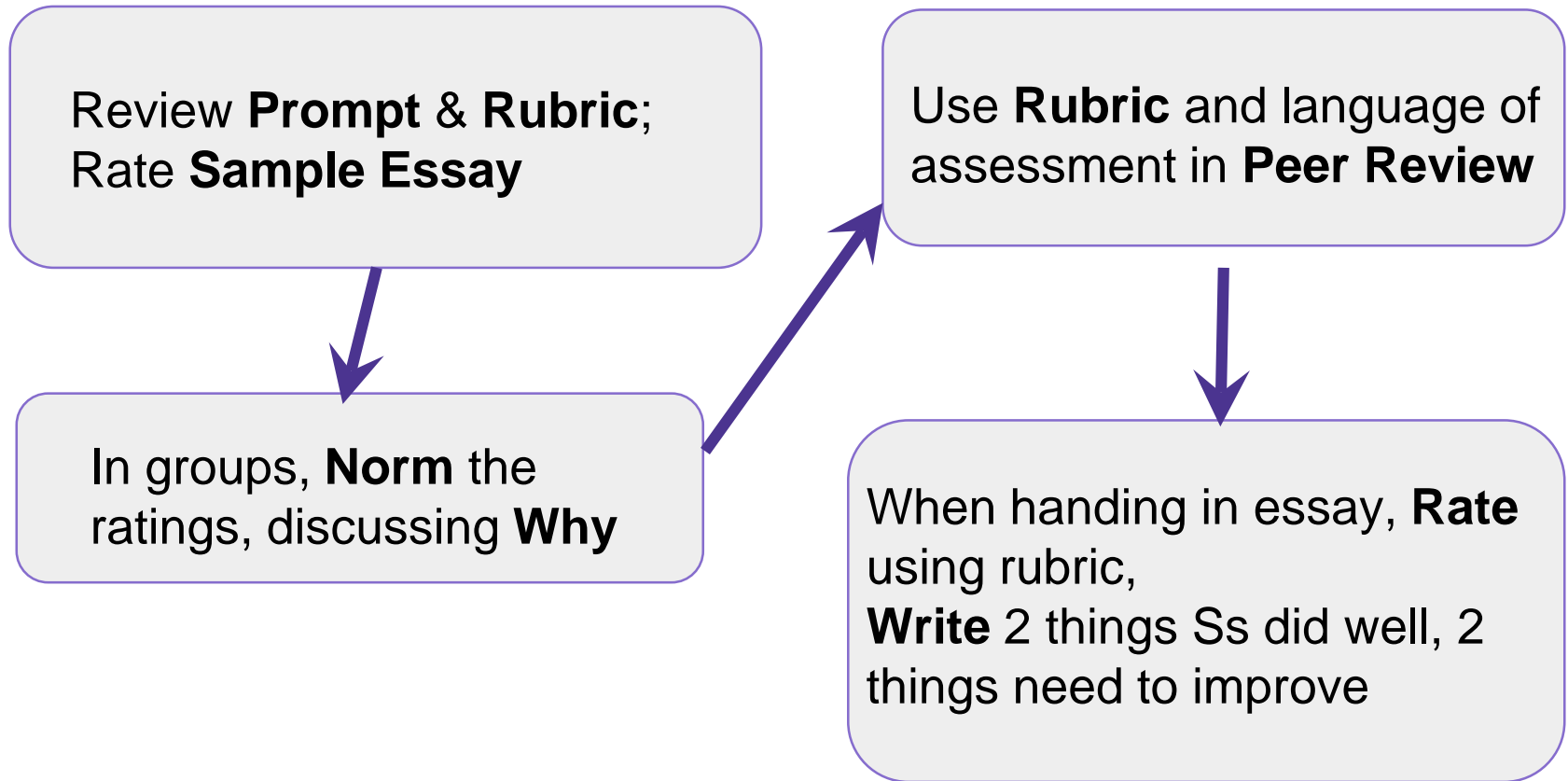
Have students write a **Revision Plan** essay, analyzing “what worked,” strategizing their revision, and planning for future writing.

Invite students to assess what they learned about writing and **look forward** to their next writing-intensive class, articulating **specific strategies** they plan to use in the future.

Active Learning

- Early in the term, have students do a “**read-around**” of peers’ writing: placing two copies of their essay in a stack in front of the class, each student reads their peers’ writing at their own pace, giving positive feedback.
- When students turn in papers, ask them to note two areas that work well and two that require improvement. Read these comments before reviewing their papers, **responding directly to their self-evaluations.**

Active Learning



More ideas on teaching for metacognition:

WAC/WID Book: *Using Reflection and Metacognition to Improve Student Learning.*

Matthew Kaplan, Naomi Silver, Danielle Lavaque-Manty, and Deborah Meizlish. 2013.

Literacy & NCTE Blog: “Activating Learning: Teaching for Metacognition.”

Jennifer Eidum Zinchuk, 2016.

<http://bit.ly/1momU38>

Benefits of Teaching Metacognition

- Supports students' development of pedagogical memories;

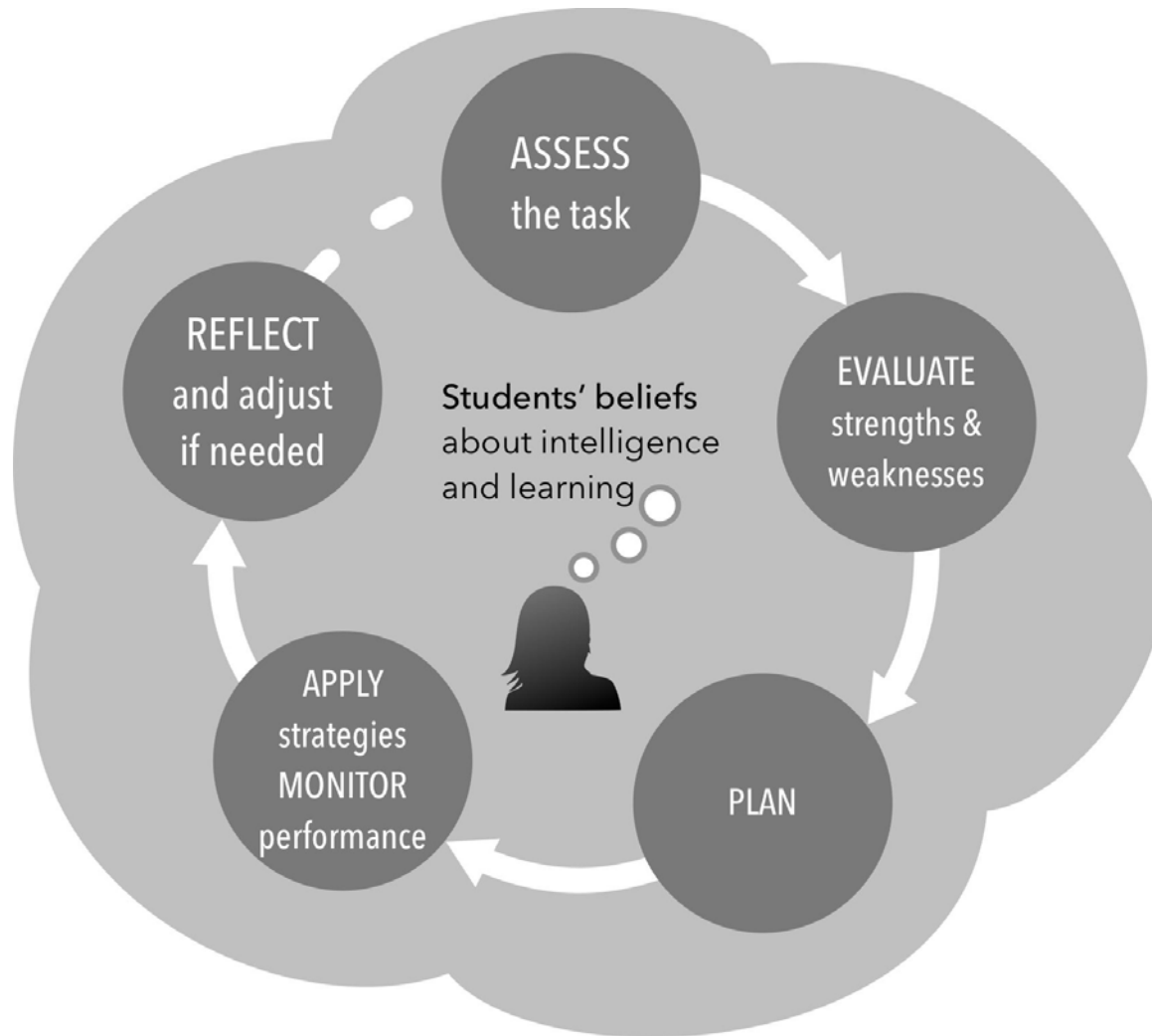




Teaching for Metacognition

- Supports students' development of pedagogical memories;
- Enables students to become self-directed learners;





Cycle of Self-Directed Learning (Ambrose, et al., 2010, "How Learning Works")

Teaching for Metacognition

- Supports students' development of pedagogical memories;
- Recognizes students' agency in their own learning;
- Incorporates students' diverse prior experiences--inside and outside the classroom--into learning;

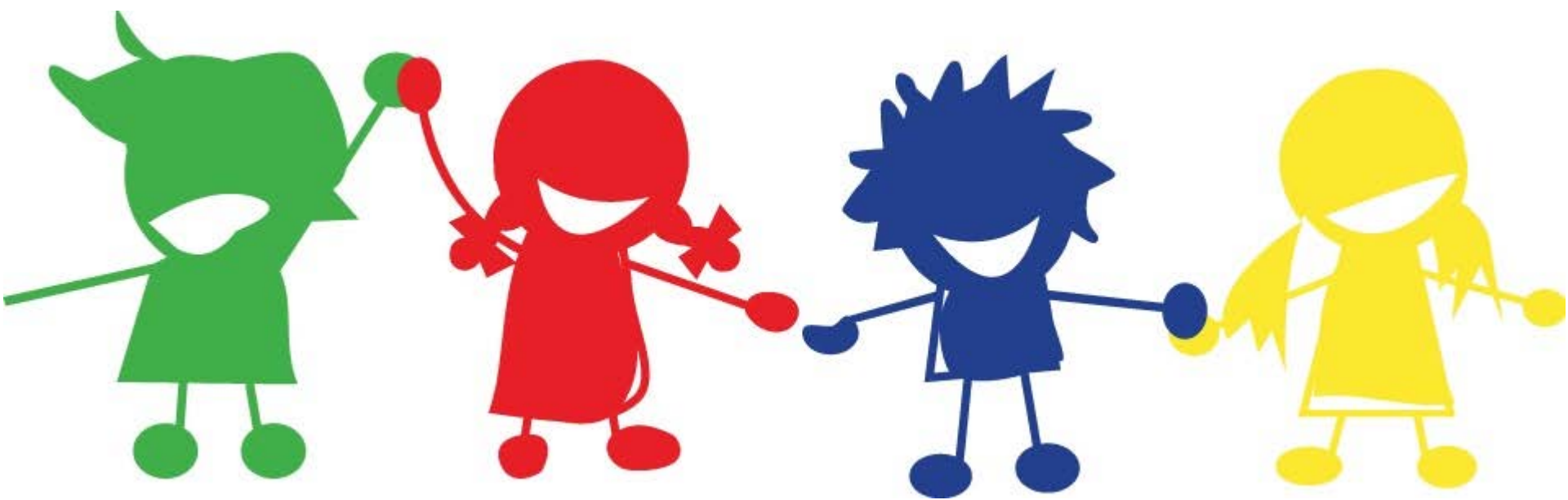




Teaching for Metacognition

- Supports students' development of pedagogical memories;
- Recognizes students' agency in their own learning;
- Incorporates students' diverse prior experiences--inside and outside the classroom--into learning;
- Fosters an active, engaged, learning community.





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