

PRACTICE AND RESEARCH

CONNECTIONS: ADOLESCENT LITERACY

THINKING METACOGNITIVELY

Simply, metacognition is thinking about thinking.

When students are metacognitive, they have an understanding of learning in three areas: they understand themselves as learners, they understand a given task, and they understand a variety of strategies and how to use them in a variety of situations (Jetton & Dole, 2004).

METACOGNITION MEANS...

- using learning goals, success criteria and descriptive feedback
- recognizing how attitudes and habits influence learning
- identifying, communicating and acting on learning preferences and strengths
- assessing learning situations and developing plans of action
- reflecting on their learning and engaging in conversations about their thinking
- seeking clarification and support when barriers to learning are encountered

“Metacognition refers to higher-order thinking that involves active control over the cognitive processes engaged in learning. It is the process of thinking about one’s own thought processes. Metacognitive activities can include planning how to approach a given learning task, evaluating progress, and monitoring comprehension.”

*School Effectiveness
Framework, 2010*

WHY TEACH IT?

Metacognition contributes to successful learning, and moves students toward independence, interdependence, and self-efficacy. Through metacognitive strategies, students learn to master information and solve problems more easily (Block et al. 2005; Scruggs, 1985).

While students in any grade can use metacognition, there are a number of reasons why it is particularly important for adolescents. As students progress through the grades, they experience more specific kinds of texts and models of thinking in the various disciplines. Using metacognition, learners are better able to assess the variety of learning situations, including more specialized subject-specific texts and vocabulary, and adapt their strategies to those contexts (Wood & Blanton, 2009).

As adolescents also need autonomy, using metacognition allows them to have a greater sense of control and independence when they approach learning situations both in- and out-of-school. As Judy Willis points out in her book *Brain-Friendly Strategies for the Inclusive Classroom* “When students use metacognition to actively and consciously review their learning process, their confidence in their ability to learn grows. They begin to attribute outcomes to the presence or absence of their own efforts and to the selection and use of learning strategies” (154).

Acquiring and using metacognitive skills has emerged as a powerful approach for promoting a focus on thinking skills in literacy across all disciplines.

Instruction in metacognition:

- helps develop a repertoire of thinking and learning skills
- fosters confidence and independence in the classroom
- encourages students to self-regulate their learning
- improves decision-making and goal-setting skills
- enables students to self-assess the quality of their thinking
- enhances responsible citizenship
- increases awareness of learning styles
- helps to decide which strategies to use in which learning situations
- strengthens essential skills and employability skills (Literacy Gains, 2008)

Metacognition can increase engagement. Metacognition “has the potential to empower students to take charge of their own learning and to increase the meaningfulness of students’ learning.”

Gama, 2007

Watch as students and teachers from Greater Essex District School Board use metacognition to improve learning.

The video, *Exploring Metacognitive Habits of Mind*, is available at www.edugains.ca.



HOW TO TEACH IT

Metacognition is included as evidence for Indicator 4.4 in the *School Effectiveness Framework*:

“Learning is deepened through authentic, relevant and meaningful student inquiry.” It states that, in the classroom, “Metacognition is modeled through the instructional process,” and that students will “Demonstrate skills of metacognition (e.g., monitor their own learning and thought processes by asking themselves questions such as ‘what if’” (29). There are a number of other indicators in the framework which also relate to metacognition.

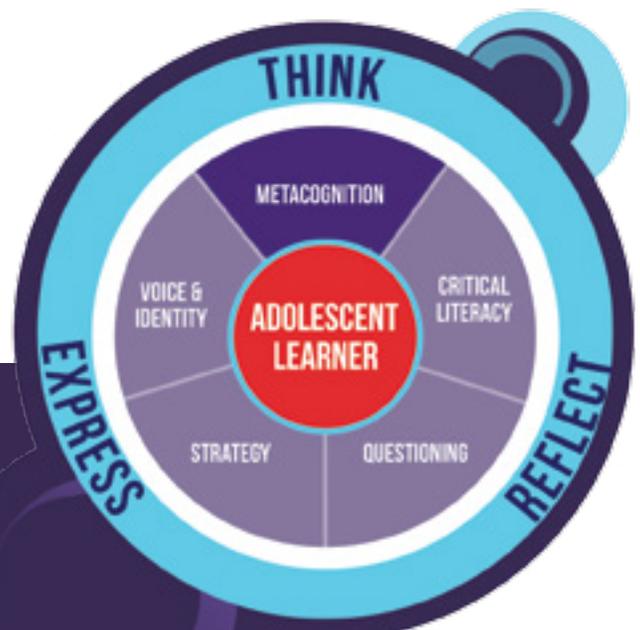
Willis suggests that “To reinforce the process of metacognition, teachers can ask students to write down the strategy they used after successfully completing an activity, especially if it was in an area in which they had not previously succeeded” (154-155). Costa notes that “Teachers can spur metacognition by directing students to verbalize plans and strategies solving challenging problems – and by urging students to share their thinking as they monitor their progress, evaluate their strategies, and generate alternative strategies” (Costa, 2008).

Connecting Practice and Research: Metacognition Guide (Literacy GAINS, 2008) outlines five basic principles for teaching metacognition:

1. Build an inclusive, positive, and stimulating classroom environment.
2. Model metacognitive thinking, with an emphasis on developing awareness of metacognitive processes, and use the gradual release model to guide students toward independently selecting, using, monitoring, and evaluating their use of these strategies (Graham & Harris, 1993).
3. Create opportunities for students to talk about their thinking and to build a thinking vocabulary.
4. Engage students in talking about metacognitive strategies, e.g., through conference, interview, or survey questions (Israel, 2007).
5. Provide students with ample practice, for example by making the discussion about metacognition part of the everyday classroom (Pintrich, 2002).

“Teachers who help students develop and internalize metacognitive strategies through direct instruction, modeling, and practice promote learning because the effective use of such strategies is one of the primary differences between more and less able learners.”

McTighe, quoted in Differentiated Assessment Strategies: One Tool Doesn't Fit All, Chapman & King, 2005



METACOGNITION IN THE CLASSROOM

Teachers can engage students in metacognitive thinking by posing questions.

Relate to themselves as learners:

What are my strengths? How do I use them?

How can I adapt to a learning situation given my learning preferences?

What skills do I still need to develop? How will I adjust for skills I still need to develop?

What resources, people, or materials can help me be successful?

How will I monitor what is working for me?

How has my thinking about this topic changed as I've gathered more information?

Relate to a given task:

What do I have to do? What am I trying to accomplish?

What skills do I need to complete the task? Which of these skills are my strengths?

How close am I to my goal? What will help me recognize that I am meeting the learning goal?

What things have I accomplished that might help me be successful in this task?

How is this task like other tasks I have attempted/completed?

What are my options and alternative approaches?

How well did my choice(s) work?

Relate to strategies and how they use them:

What strategies am I using? What strategies do I need to use?

Are the strategies I am using helping me reach my goal? If not, are there other strategies or approaches that might move me closer to the target?

Do I need to go back and re-read, re-do, or re-think anything?

How am I practicing my strategies?

“Assessment as Learning is the process of developing and supporting student metacognition. Students are actively engaged in this assessment process: that is, they monitor their own learning; use assessment feedback from teacher, self, and peers to determine next steps; and set individual learning goals. Assessment as learning requires students to have a clear understanding of the learning goals and success criteria. Assessment as learning focuses on the role of the student as the critical connector between assessment and learning.”

Growing Success, 2010

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