## **Learning Support: Responsive Teaching**

## ***A weekly blog that will be emailed, with hard copies available in the HS faculty room; format generally the same***

## **Debbie McLaughlin, Forest Ridge High School**

## **December 14, 2018 Theme: Metacognition**

*The blog is taking next week off; the next edition will come out in January.*

*Happy Holidays!*

### **Brain-based corner**

In [How People Learn](http://www.nap.edu/catalog.php?record_id=9853), the National Academy of Sciences’ synthesis of decades of research on the science of learning, **one of the three key findings … is the effectiveness of a “‘metacognitive’ approach to instruction”**(Bransford, Brown, & Cocking, 2000, p. 18).

Metacognition is, simply put, thinking about one’s thinking above the subject matter. Metacognitive practices increase students’ abilities to transfer or adapt their learning to new contexts and tasks. (Bransford, Brown, & Cocking, p. 12; Palincsar & Brown, 1984; Scardamalia et al., 1984; Schoenfeld, 1983, 1985, 1991).

<https://cft.vanderbilt.edu/guides-sub-pages/metacognition/>

We should spend time in the classroom deliberately and explicitly teaching metacognition: what it is and how to increase metacognitive self-awareness.

Researchers distinguish between **metacognitive knowledge and metacognitive regulation** (Flavell, 1979, 1987; Schraw & Dennison, 1994).

Metacognitive **knowledge** refers to what individuals know about themselves as cognitive processors, about different approaches that can be used for learning and problem solving, and about the demands of a particular learning task.

Metacognitive **regulation** refers to adjustments individuals make to their processes to help control their learning, such as planning, information management strategies, comprehension monitoring, de-bugging strategies, and evaluation of progress and goals.

<https://lincs.ed.gov/state-resources/federal-initiatives/teal/guide/metacognitive>

### **Strategies and structures**

**Science & math**

1. Use ***pre-assessments*** to see what students know (do not grade these!)
2. The ***Muddiest Point***—like an exit ticket, but even more effective if used to punctuate segments of class, so you can immediately address confusions
3. Tables 1 and 2 at this link offer useful ***questions*** to start teaching and embedding into classwork and individual work

<https://www.lifescied.org/doi/full/10.1187/cbe.12-03-0033>

1. Increase self-reflection. One example: ***Exam wrappers***. See the link.

<https://depts.washington.edu/cpreeuw/wordpress/wp-content/uploads/2015/12/GT-FG-11.pdf>

**Any discipline**

Create a two-column table: ***Cognitively Active and Cognitively Passive*** study habits. Co-create with students. Make copies. Give out after a major assignment…or maybe even before to prompt students.

<https://cft.vanderbilt.edu/guides-sub-pages/metacognition/>

***Ten strategies***—especially see

#6 classroom assessment

#7 note-taking skills

#9 more wrappers)

<https://ciel.viu.ca/teaching-learning-pedagogy/designing-your-course/how-learning-works/ten-metacognitive-teaching-strategies>

## **Seen and heard: Cool stuff**

Louisa’s 9th grade religion class: a lesson on notetaking from a lecture

* She used some passages seen before, and asked: have you s have you seen this?
* She directed: for each theory, write three characteristics
* At the end of the lecture, she asks around the class at large for girls to say the characteristics out loud
* When someone seems to be drifting, she gently says, “Mary, are you with me?”