

METACOGNITION

by Evelyn Maycumber

Strategic readers know what they know and they know what is working for them. They are aware of their own learning. These students can “stand back” and view in their minds the process of the specific task at hand. It is as if they have a “rewind button” that enables them to review the process of learning. When they perceive that the reading about hurricanes, for example, does not make sense to them or the ideas are unclear, they stop and take action. Struggling readers and even some achieving students are not aware when they do not understand—they keep on “saying the words” without understanding the meanings of those words.

RESEARCH

Metacognition is knowing about knowing. The theory was first developed in the 1970s. (Favell, 1977). For a student, the knowledge about how his “knowing” is progressing can help him retain more information and guide him on how to proceed when confronted with text containing ideas that must be remembered. (Paris, Lipson & Wixson, 1983). Metacognition increases the likelihood of long-term, appropriate use of strategies (Pressley, Borkowski & O’Sullivan, 1984, 1985). The use of strategies to assist in organizing and retaining information found in text was an outgrowth of the discovery that being metacognitive greatly assisted learning. Although strategies were teachable to students, it was found they became a part of students’ long-term use when the teacher’s instruction included information about the usefulness of the strategy (Pressley et al, 1982).

Pressley defines metacognition:

Metacognition is knowledge of thinking processes, both knowledge of the thinking occurring in the here and now (“I am really struggling to figure out how to write this introduction; I believe that the introduction I have just written makes sense”) and in the long term (“I know a number of specific strategies for planning a composition, rough drafting it, and revising the draft”). In the case of reading, the most important hear-and-now metacognition is awareness of whether a text is being understood (or conversely, awareness of when text is not being understood and probably will not be remembered). Long-term metacognition in reading includes knowledge of comprehension strategies. This can begin during direct teacher explanations and modeling of strategies, but develops most completely when students practice using comprehension strategies as they read. It seems especially helpful if such practice includes opportunities to explain one’s strategies use and reflect on the use of strategies over the course of semesters of schooling. The internalization of comprehension strategies involves long-term practice with the strategies, including opportunities to reflect on strategies use with others.

Key ideas to help students become metacognitive:

TEACHER SAYS

You can understand this passage/paragraph by monitoring your own thinking as you read.

You have a copy of the page of the text so you can write questions you need to clarify and words that you need to know.

Now that you have finished this topic, write in your journal what helped you.

One way to monitor your thinking is to turn the headings into questions.

Now write down the way the questions helped you focus on the main idea of this text.

TEACHER DOES

Modeling: When I read this paragraph I thought the author was talking about planes, but then I realized the topic was birds and the plane reference was just an analogy, a way to help me understand how the eagle’s flight is sometimes like a plane. I re-read the paragraph, and I found the specific clarification in sentence four.

Modeling: I’ll show you exactly how to do this. Listen as I tell you exactly what I am thinking and as I write exactly what I think will help me. . . . Now you write exactly what will help you.

Modeling: Here are 3 things that helped me understand this text.

Modeling: Here are two questions I have made. . . . Where do you see them fit in the text before you?

Modeling: In the second paragraph, here are the ways the question helped me focus and understand the author’s purpose for this text.

Now let's pick out the important ideas and try to summarize each paragraph/heading in one or two sentences.

Try to write in your journal just how you summarized this page. Write down each step you took. This is a very powerful learning strategy and will help you in each of your content classes.

Modeling: I have made two summaries for you to look at. Which one best puts together in a few words the main ideas of the first section of this text?

Modeling: Here is the way paragraph three went for me. . . . As you think about how you understood and summarized this same paragraph, write it down and then tell me how your process differed from mine.

The metacognitively sophisticated teacher knows that:

Metacognition and comprehension skills do not develop very well on their own.

Strategies used by good comprehenders can be taught with explanation and modeling.

Scaffolding of guided practice can result in independent student use of metacognition.

It is important for all strategy use to be given in the context of read, read, read.

Comprehension and use of metacognition depends upon extensive reading and development of background knowledge.

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For a complete bibliography on Memory see

<http://www.programsteppe.com/memory.htm> (as of 04/2/2005)

For an interesting sight on Metacognition that might relate to some students see

<http://www.studygs.net/metacognition.htm> (as of 04/2/2005)

About the Author: Evelyn Maycumber is a CRISS Master Trainer and an educational consultant from Gainesville, Florida. Ms. Maycumber is the author of the "Comments from Evelyn" column that usually appears in *Comments from CRISS*. For this issue, we have run her column as one of our lead articles.

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