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INTRODUCTION

METACOGNITION

What's it all about, Alfie?

An intellect is someone whose mind watches itself.

—Albert Camus

Metacognition—thinking about thinking; but exactly what does that mean? Metacognition is not even in the dictionary. It sounds pretty esoteric, doesn't it? And if asked to define metacognition or describe it, you might feel somewhat inadequate. It's like trying to explain atomic fusion to a five-year-old; you can conceptualize it in your mind, but you don't know how to tell someone else—in simple language—what it is.

In the early '80s when the thinking skills movement was in its infancy, to use the word metacognition in a teacher workshop was risky; people actually became hostile. One time a veteran teacher stood up, red in the face and demanded, "Why do you have to use words like these? Can't you speak English?"

To take some of the mystery (and hostility) out of the word, there are several examples of metacognition that may make it easier to grasp.

A WORKING DEFINITION

Think about a time when you were reading and suddenly you got to the bottom of a page of text and a little voice inside your head said, “I don’t know what I just read.” With this awareness of knowing what you *don’t* know, you employ a recovery strategy and you read the last sentences; you scan the page of paragraphs looking for key words; you reread the entire page. Whatever you do, you capture the meaning and go on. This awareness—knowing what you know and what you don’t know is called metacognition:

A reader who reads and reads and reads and doesn’t know that he doesn’t is not using metacognition. The key to metacognitive behavior is this self-awareness of one’s own thinking and learning. “Once you know, you can’t not know” and, in fact, you can then adjust accordingly. So metacognition is awareness and control over your own thinking behavior.

To have awareness and control over your own thinking one may plan metacognitively, monitor progress metacognitively, or evaluate metacognitively. Thus, the three areas, planning, monitoring, and evaluating provide the appropriate framework for self-reflection.

PLANNING

Let me give a more specific example of metacognition in the planning stages that might clarify the concept. As a teacher, you plan your lessons prior to class; you take into consideration myriad variables including time, complexity, prior knowledge, student population, etc. This planning phase, the time when you predict, prepare, and plan your day is a metacognitive time for you.

During this preparation time, it’s almost as if you are standing *outside* the situation—looking in; you are imagining the actual lesson and the reaction(s) of the class to your plans; you are in essence removed from the action. This is metacognitive planning.

MONITORING

Once you begin the actual teaching of the lesson, you move into the cognitive realm. You enter into the context of the subject matter content and execute your lesson plan. You are inputting information for student understanding. However, often in the midst of the teaching act, teachers move out of that cognitive arena and into the metacognitive. Let me illustrate.

Halfway into your explanation of photosynthesis, you notice signs of confusion. One student is rifling through the pages of his science book looking for the part in the text that explains photosynthesis. Another student is doodling a diagram of the process in her notebook, but you can see it is incomplete. Several hands are raised and other students have a glazed look in their eyes.

Noticing all this, in an instantaneous glance up from the blackboard, you immediately shift gears and ask students to turn to their partner and ask a question they have about the process of photosynthesis. After a few minutes—after the partners have tried to answer each other’s question, you ask for some sharing so you can clarify the concepts for everyone.

This monitoring of the students’ reactions and the resulting adjustment to the instructional input is metacognitive in nature. Whenever we watch student behaviors and log the information for “minor adjustments or repairs”—we act metacognitively—beyond the cognitive. It’s as if we do a “freeze frame” on the teaching in the classroom; an instant replay format—we take a second look at what’s going on. This is metacognition.

EVALUATING

If you’re still confused—or feeling vague about metacognition, let me give you a further example of metacognitive reflection as evaluation.

Think back to your childhood—about something you memorized years ago; a poem, a song, a theorem—maybe even the multiplication tables. It can be anything.