



EXAMINING THE EFFECT OF METACOGNITIVE SKILLS ON PERFORMANCE OF STUDENTS

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Abstract

Researchers suggested that students with good metacognitive skills will be able to learn effectively. Thus, promoting metacognitive development in the classroom will help students to become efficient learners. This paper is an attempt to examine the effect of metacognitive skills on performance of students in the classroom. Many researchers believe that metacognitive skills holds great deal of promise for helping students do better. Metacognition becomes essential when tasks are more challenging. Researchers found that metacognitive ability tends to associate positively with academic attainment of high school pupils. By practicing and applying metacognitive skills, students will become good readers, capable of handling any text across a curriculum. There is a lack of attention to this aspect by teachers in the classroom. Hence, the effort should be geared to encourage teachers to consider the 'metacognitive reflection' activities in the classroom.

Keywords: *Metacognitive skills, students' performance, Metacognitive strategies.*



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Introduction

Metacognition is cognition that goes beyond ordinary thinking. The term “meta” refers to second order knowledge. An early definition of metacognition by Flavell (1976) referred metacognition as One’s knowledge concerning one's own cognitive processes and products or anything related to them. Metacognitive skills refer, among other things, to the active monitoring and consequent regulation and orchestration of these processes in relation to the cognitive objects or data on which they bear. Metacognitive skills has a number of concrete and important effects on learning which plays an important role in oral comprehension, reading comprehension, problem solving, attention, memory, social cognition, personality development, communication and various types of self-control and self instruction which are key concerns for school.

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challenging. Researchers found that metacognitive ability tends to associate positively with academic attainment of high school pupils. By practicing and applying metacognitive skills, students will become good readers, capable of handling any text across a curriculum. Because metacognitive skills appear obvious, some teachers might believe that students in intermediate grades begin the school year cognizant of these strategies and experienced in using them. The truth is, most students are unaware of the metacognitive process. Yet only through “thinking about thinking” and using metacognitive skills do students truly learn.

Strategies That To Improve Metacognition Skills

1. Teach students how their brains are wired for growth.

The beliefs that students adopt about learning and their own brains will affect their performance. Research shows that when students develop a growth mindset vs. a fixed mindset, they are more likely to engage in reflective thinking about how they learn and grow. Teaching kids about the science of metacognition can be an empowering tool, helping students to understand how they can literally grow their own brains.

2. Give students practice recognizing what they don't understand.

The act of being confused and identifying one's lack of understanding is an important part of developing self-awareness. Take time at the end of a challenging class to ask, "What was most confusing about the material we explored today?" This not only jumpstarts metacognitive processing, but also creates a classroom culture that acknowledges confusion as an integral part of learning.

3. Provide opportunities to reflect on coursework.

Higher-order thinking skills are fostered as students learn to recognize their own cognitive growth.

4. Have students keep learning journals.

One way to help students monitor their own thinking is through the use of personal learning journals. Assign weekly questions that help students reflect on how rather than what they learned. Encourage creative expression through whatever journal formats work best for learners, including mind maps, blogs, wikis, diaries, lists, e-tools, etc.

5. Use a "wrapper" to increase students' monitoring skills.

A "wrapper" is a short intervention that surrounds an existing activity and integrates a metacognitive practice. Before a lecture give a few tips about active listening. Following the lecture, ask students to write down three key ideas from the lecture. Afterward, share what you believe to be the three key ideas and ask students to self-check how closely theirs

matched your intended goals. When used often, this activity not only increases learning, but also improves metacognitive monitoring skills.

6. Consider essay vs. multiple-choice exams.

Research shows that students use lower-level thinking skills to prepare for multiple-choice exams, and higher-level metacognitive skills to prepare for essay exams. While it is less time consuming to grade multiple-choice questions, even the addition of several short essay questions can improve the way students reflect on their learning to prepare for test taking.

7. Facilitate reflexive thinking.

Reflexivity is the metacognitive process of becoming aware of our biases -- prejudices that get in the way of healthy development. Teachers can create a classroom culture for deeper learning and reflexivity by encouraging dialogue that challenges human and societal biases. When students engage in conversations or write essays on biases and moral dilemmas related to politics, wealth, racism, poverty, justice, liberty, etc., they learn to "think about their own thinking." They begin to challenge their own biases and become more flexible and adaptive thinkers.

Metacognitive Strategies by the Teachers

Proper metacognitive strategies may be used by the teachers as it has significant impact on students' performance. Students may be encouraged to use metacognitive strategies as it has significantly correlated with students' performance. There are several practical ways of integrating the teaching of metacognitive strategies into our own practice. Two of these are the KWL strategy and the IDEAL approach.

- **The KWL strategy** - The KWL (knows, want, learn) strategy (Dixon-Krauss, 1996) attaches importance to students being actively involved in thinking about their learning. First students need to know or identify what they already know. This step invites students to bring their own experience and background knowledge to the learning situation. Having completed this step, learners are in a position to identify what they want to learn and know more about. In this way the learners are active in constructing their learning, rather than being told what they must learn by the teacher. Finally, they reflect on what they did learn. Students review their learning which is made more meaningful as they make connections between prior knowledge and new learning.
- **IDEAL** - This is another approach to teaching metacognitive skills that promote efficient thinking and problem solving (Byrnes, 1996). IDEAL is an acronym for identify, define,

explore/evaluate, act and look/learn. The first step involves anticipating difficulties we may encounter during the problem-solving process. Novices rarely engage in this step. They have difficulty anticipating the difficulties and lack the planning skills to prepare for them. Defining the problem involves thinking through the steps of the problem and which steps might potentially be difficult. The expert sets goals for overcoming possible problems before they arise. In the exploration phase, the expert learner tends to be reflective and to think more broadly about ways of solving the problem. Novice learners spend little or no time on this planning phase. The more experienced learner spends time thinking, reflecting and planning before acting, whereas the novice learner tends to act without devoting time to these earlier phases. The look and learn phase engages learners in self-reflection, self-questioning about the process, and thinking about what has been learned and how they might learn from the experience. Novices typically lack reflection and self-monitoring skills.

Reasons to Teach Metacognitive Strategies

Consider the following three main reasons to teach metacognitive strategies.

1. To develop in students a deeper understanding of text

Good readers know how to use cognitive and metacognitive strategies together to develop a deeper understanding of a book's theme or topic. They learn or "construct knowledge" (using cognitive strategies) through a variety of methods, and then recognize (using metacognitive strategies) when they lack understanding and, consequently, choose the right tools to correct the problem.

2. To take students' thinking to a higher level

For many students, explaining their thought process is a daunting task. They may think, "How do I explain what I think? I don't know what to say. My teacher usually helps me out." These students need opportunities to take their thinking to a higher level and express themselves clearly. Small-group activities, especially those with a teacher's guidance, provide them with the right opportunities.

3. To steer students into adulthood

Once metacognitive strategies are grasped, students will transfer use of these skills from their school lives to their personal lives and will continue to apply them as they mature. Metacognition is a three-part process. To be successful thinkers, students must develop a plan before reading, monitor their understanding of text; use "fix-up" strategies when meaning breaks down and evaluate their thinking after reading.

Conclusions

This paper aims at highlighting the importance for learning the facets of metacognition skills. Thus, metacognition skills has a dual role it forms a representation of cognition based on monitoring processes; and exerts control on cognition based on the representation of cognition. Metacognitive skills comprise the students activities such as orientation/monitoring the comprehension of task requirements, planning the steps to be taken for task processing, checking and regulating cognitive processing when it fails, and evaluating the outcome of processing.

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