



Enhancing Metacognition In The Classroom: Exploring Possibilities

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Abstract

Over the pandemic years, face to face classroom interactions have died down giving rise to virtual interactions. Along with nuances of a positive classroom environment, the cognitive thinking and process have also died down. It is important to produce teaching and learning activities that improve the efficiency of cognitive functions. Metacognition is one such function which is proven to have decreased in the last two years during the pandemic. It is an integral process of reflection and self-interrogation that helps to illuminate the context of the concept learnt. Armed with the knowledge of cognition, learners can foster metacognitive awareness through a deliberate approach to the learning process. This thematic paper gives an awareness on metacognition, its skills, its importance and ways to achieve it among students.

KEYWORDS: Metacognition, Metacognitive skills, Teaching-Learning

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INTRODUCTION

Metacognition is a concept that was introduced by John Flavell in 1979. It is the ability to control the thinking processes using various strategies such as organizing, monitoring and adapting. It is one's ability to reflect upon the tasks that are undertaken or selected such that appropriate strategies are utilized that are acceptable according to the socio-cultural norms. Metacognition is the process of thinking about thinking. Every human being does metacognitive processes all the time because it is like a basic survival strategy that helps him survive the challenges and problems every day. Developing metacognition can help an individual to improve his knowledge, skills and character qualities. Metacognition is the indispensable foundation in intelligent leadership because it highlights how an individual can think through a problem or a situation and the different ways the individual adopt to address a given situation or problem.

NEED OF THE STUDY: IMPORTANCE OF METACOGNITION IN LEARNING:

Metacognition is considered as a critical component of successful learning. It is a self-regulating and self-reflecting process. It employs the self-reflection of one's own strengths, weaknesses and the different capabilities of the individual. In education, metacognition is important because it helps and motivates students with self-regulation of their learning and implements transference of skills and content through reflection and abstract intelligence. Beyond academic learning, metacognition helps the students to be self-aware about themselves and about their concerned mental states. Self-awareness helps the child to engage with his family, peers and society as it links the child's thoughts with his experiences with his social relationships. Students who encompass metacognitive skills perform better on academics. Swanson (1990) found that metacognitive knowledge can compensate for IQ and lack of prior knowledge when comparing fifth and sixth grade students' problem solving. Students with a high-metacognition were reported to have used fewer strategies, but solved problems more effectively than low-metacognition students, regardless of IQ or prior knowledge.

DESCRIPTION

Types of Metacognitive Knowledge: There are three types of metacognitive knowledge:

1. **Declarative knowledge:** refers to knowledge about oneself and about factors that can influence one's performance.
2. **Procedural knowledge:** refers to knowledge about manipulating things or actions. It helps an individual to perform tasks more efficiently and quickly.
3. **Conditional Knowledge:** refers to the idea of understanding when and how to use declarative and procedural knowledge. It allows the individual to allocate his/her resources when he/she is using strategy.

Metacognitive Cycle: The metacognitive cycle consists of five distinct skills that would be repeated for every task.

- a. **Assess the task:** The student has to assess every aspect of the task for completing the task successfully. Aspects such as the time that would be taken to complete the task, the resources that would be required and the format in which the task has to be achieved.
- b. **Evaluate the strengths & weaknesses of oneself:** The student has to evaluate their own strengths and weaknesses in regards to the task. The student should first introspect and know their strengths and weaknesses in general and then relate it to the completion of the task.
- c. **Plan an Approach:** A plan has to be devised by the student in the thoughts of successful accomplishment of the task. The plan should be contrived from the assessments made by the student before, on themselves and on the material aspect.
- d. **Apply the strategies and monitor the performance:** As the student is working on the task, s/he has to continually monitor the progress at every given time. The planned respective strategies should be applied in the working of the task.
- e. **Reflect and Adjust:** Here, after the completion of the task or a particular step in a task, the student should look back and reflect on the actions taken during the task (or step) and why it was taken and how well or how bad it was executed.

Regulation of Cognition: The steps to regulate one's cognitive process are:

1. Setting goals and planning
2. Monitoring and controlling learning
3. Evaluating own regulation

'Knowledge of Cognition' is more easily acquired and improved. 'Regulation of Cognition' strategies are not that easy to acquire and most often students would not improve over time

because they need to learn the strategies and have chances to practice in and out of classroom experiences.

MEANS TO ENHANCE METACOGNITION

☞ Learning Strategies to Improve Metacognition:

- a. **Rehearsal:** To Repeat or recite the concepts learned in the classroom. It helps in bringing the attention back to the class.
- b. **Elaboration:** To paraphrase, summarize or expand the concepts from the topic just learnt. It helps in retaining the learnt concepts in the long-term memory by building semantic networks.
- c. **Organization:** To systematically arrange the points learnt for easier remembrance. It helps in selecting and learning appropriate information.
- d. **Analysis:** The concept will be broken into smaller pieces and learnt together by forming connections between each piece. This leads to development of problem-solving capabilities and critical thinking.

☞ Activities to Improve Metacognition:

- (i) **E- portfolios:** Electronic Portfolio is a culmination of documents that exhibits the knowledge, skills and abilities and one's growth over time. It showcases the learning that happens over time. E-portfolios help the students to document their experiences and enhance the process of reflectiveness. It helps the students to collect, organize and interpret the results of their learning, and increase the skill of reflective thinking through the exercise of various activities. It may include the following:
 - Writing Excerpts like essays, journals, daily recordings.
 - A-V media files.
 - Projects and Research journals.
 - Own blog links and web page links.
- (ii) **Reflective journals:** Reflective journal is a personal record where one can document everyday experiences or any new learning experiences. It is a space where a student can record and reflect upon his/her own observations and responses to situations, which can then be used to explore and analyse ways of thinking. It can be used to improve various aspects relating to self-management or resource management such as time-management and management of learning environments. In a reflective diary, students record their thoughts on the level of awareness involved in their cognitive labour and comment on their learning decisions (Papaleontiou- Louca). Through a reflective journal, one can explore the ways of

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using learning strategies consciously and of adapting the learning process to the concrete situations (Henter R, Indreica E., 2014).

Some of the types of reflective journals that could be used by the students are:

- **Double-Entry Journals:** Students will jot down the quotes, sentences or any new ideas on text, video, or any presentation and they will reflect on them, making connections to own thoughts and feelings in relation to them.
 - **Doodle Journal:** It is much more fun way to jot down one's thoughts. The students will doodle about their learning experience with no requirement other than being able to explain why they drew what they drew.
 - **Key Issues Entry Journal:** Students are asked to write their thoughts on any kind of key issues encountered in the community or society level.
 - **Concept Journal:** It helps the students to promote their thinking through various abstract or concrete concepts.
- (iii) **Blogging:** It is a free, online platform which consists of informal or discrete entries written usually under one theme. It is accessible to everyone unless it is deemed as a private blog site.
- (iv) **Questionnaires:** Students can use self-constructed questionnaires or teachers can create questionnaires to analyse what they have learnt in the class in terms of attaining the objectives of the lesson taken. This will help the students to introspect themselves on what they understood and how well they have understood the concept taught in the class.
- (v) **Maintaining a 'to-do' record:** A 'to-do' record helps one to attain a specific goal by defining the different ways and means to attain the goal. A 'to-do' record can be something very simple as the list of things to buy or as complex as a bullet journal. It helps the student to think through how a certain goal as to be achieved.
- (vi) **Lesson Envelope:** Lesson Envelope helps the students to self-monitor. It surrounds an existing activity and assignment that encourages metacognition. Here, the teacher encourages the students to think of the most important points from the concept taught in the class. After the class gets over, the teacher reveals the important points from the concept. This immediate feedback will allow the students to monitor their active listening strategies.

ROLE OF A TEACHER TO ENCOURAGE METACOGNITION IN THE CLASSROOM

- a) Encourage the students to take up any strategy to improve metacognition.

- b) Discuss the correct answer after the questioning.
- c) 'Why' and 'How' always counts.
- d) Pause and stock.
- e) Use a 'wrapper', i.e. to ask the students to list out three things that they understood from the class.
- f) Use lesson envelopes.
- g) Asking students to pick questions by themselves.
- h) Encourage feedback.

CONCLUSION:

As quoted by Hattie (2012), "We need to develop an awareness of what we are doing, where we are going, and how are we going there; we need to know what to do when we do not know what to do. Such self-regulation, or metacognitive, skills are one of the ultimate goals of all learning."

Teaching students better metacognitive technique provides them with life skills that will help them get better grades. As with any skill, it requires time, patience and practice. But helping them develop metacognitive skills at each stage of a task will help. Prior to the task this involves setting goals, preparing thoroughly and thinking about similar previous situations. During the task this includes monitoring their performance and after the task seeking feedback, actioning it and keeping a diary.

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