

# Influence of Metacognitive Awareness on Students' Learning Process

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## I. Introduction

This article speaks about the students' metacognitive awareness in their learning process. Metacognitive awareness means 'being aware of how you think'. Each and every student possesses a learning style of his own. For some it's a natural talent and for the others it's an acquired talent. For those who acquire, it doesn't happen all of a sudden. They have to follow strategy after strategy to acquire the right one. A learner should be able to synchronize his learning approach and also should be able to choose the particular learning strategy by himself. A primary goal in the study of self-regulated learning is to come to a better understanding of the process by which students monitor and then regulate or improve their tactics when learning (Winne & Hadwin, 1998). Metacognitive awareness is a self-regulated learning process. The different learning strategies involve reading the textbook again and again which proves to be ineffectual and doesn't play an active part. Some of the other strategies are notes making during lectures, proper understanding, relating the lesson with something else for better understanding and storing it in memory for further future use, creating mind maps, discussions, etc. These methods have proved to be effective in the learning process. Different study strategies along with self-regulated and academic performances are interlinked. If the students learn the strategy of how to learn, they become better learners. Some students may be able to learn in a quiet place where as some may be able to learn in an area that is chaotic and din. The way of learning may differ from learning English to Math and from Chemistry to Biology. In order to acquire the learning strategy, a student should regulate his study behaviour. Only then can he find the result of the learning strategies and whether the strategy is a failure or a success. The student has to think and rethink to fit in the correct strategy and be aware of the strengths and weaknesses and this is metacognitive awareness.

## II. Metacognitive Awareness on Students' Learning Process in the Present Scenario

Metacognitive Awareness plays a vital role not only on Students' Learning Processes but also throughout their life. It's an awareness of one's own learning.

Metacognition happens when students analyze tasks, set goals, implement strategies and reflect on what we're learning. [Dr. Natalie Saaris February 23, 2017]

In an International Workshop, Scientists believe that self-awareness, associated with the paralimbic network of the brain, serves as a "tool for monitoring and controlling our behavior and adjusting our beliefs of the world, not only within ourselves, but, importantly, between individuals." This higher-order thinking strategy actually changes the structure of the brain, making it more flexible and open to even greater learning. [Marilyn Price-Mitchell, April 7, 2015]

In today's scenario, steps are being taken by the educationists and the institutions to create metacognitive awareness in students which in turn shows better progress in their learning.

A metacognitive student sees him or herself as an agent in the learning process and realizes that learning is an active, strategic activity. [Dr. Natalie Saaris, February 23, 2017]

Recently, in the classroom students are motivated to think about their thinking. The teacher guides them to plan & set the goals, learn, understand, analyse, reflect, assess and apply the strategies. The students are made to understand the knowledge they possess, what needs to be improved, to set their goals and implement them. Sometimes, students sought the help of their peer group when they smell difficulty.

The role of the learner and the teacher is great and they have to provide an effective contribution which consists of continuous follow-up and when faced with difficulty proper help should be extended by the teacher to the learner.

There are certain rules to be followed by the teacher and the learner to provide effective metacognition. The focus should not deviate. The learner should ask questions so as to understand properly and the teacher should answer appropriately to the questions asked. The teacher should guide for a further analysis and application and motivate the students to try for further enhancement of learning. When different strategies are followed, the learner understands that there are different ways and means to handle a particular subject or lesson and failure is possible and there is an alternative for that. Therefore, a new state of mind is set and the learner is sure to articulate his doubts where and when necessary for growth.

The tamil movie '**Pasanga**' expresses a thought wherein the students write what they want to become with their name. For example, the boy who plays the lead role writes his name as **Anbukkarasu IAS**. In the same way, if the learner visualises what needs to be accomplished, he will be able to remember and he has to set a deadline for his accomplishments.

- \* Set goals and chart progress
- \* Breakdown tasks and set deadlines
- \* Choose and implement specific strategies
- \* Monitor, adjust and problem-solve.

\*Note that each of these phases can often work in tandem than sequentially [**John Spencer, August 13, 2018**]

Metacognitive strategies make the learner look for more ways and that helps in the individualised learning of the learner. It also helps the learner to think and act independently and reflect upon whatever is done. The learner learns to turn attentively towards the strategy that really works for him and thus understanding creeps in. The learner finally knows how to use the strategies properly and this slowly develops the metacognitive awareness. This metacognitive awareness can be put to use to all students by the teachers. That's what most of the teachers are trying at present. Using various teaching learning aids, the teachers help the students to accomplish their tasks, though not immediately. In certain areas, they take the help of the parents too, to supervise the learner whether the learner is able to follow and act according to the teacher's guidance.

### **Students' Metacognitive Awareness & Motivation**

Are all the students aware of metacognition? - is a million dollar question. Learners differ everywhere. Some are naturals. Some don't pay any attention to studies. The remaining students who by self or motivated interest struggle to find ways and means to achieve something. This lot tries various strategies and sometimes becomes demotivated and leaves half-way. Whereas some students in this lot apply the strategies one by one with great persistence and achieve their goal.

As education to all children is made compulsory by the government, it is mandatory for the teachers to help their students in their studies. It becomes the teacher's responsibility to guide the students in the right track and help them with the right strategy which includes metacognition and thus creating metacognitive awareness. The teacher with certain considerations may involve the parents too especially for the lower class students. The teacher should think twice before involving the parents as it may sometimes prove difficult for the teachers to make the parents understand or make them do what she exactly wanted or it may be difficult for her when the feedback given by them may not be the right one the teacher expected. Therefore, considering all these the teacher has to involve the parent when and wherever necessary. The students belonging to the higher class should be made to listen to the teacher and that may be through creating interest or through motivation. Once the students get into the groove, it is easier for the teacher to get into the right strategy through the right metacognitive skill. Today most of the students fix a goal and hither or thither they concentrate on their aim and get into the track and achieve their goal. When the students want to learn new things they think of new strategies and apply them and when they feel uncomfortable after evaluating their needs, they invent new strategies and implement them.

Knowledge monitoring had a significant relationship with school grades, continue to indicate that accurate monitoring is an important variable in school learning [**Everson; & Laitusis (1999)**].

Motivation for the students can happen through teachers, peers, parents, etc. The main aim of this motivation is for the students to follow happily and enjoy whatever they do and not to feel bad, depressed, disappointed or dejected. When motivation plays a vital part in the students' learning, then it becomes a win-win situation.

### III. Positive impact of Metacognitive Awareness on Students' learning process

Metacognition is important in learning and is a strong predictor of academic success (**Dunning, Johnson, Ehrlinger & Kruger, 2003; Kruger & Dunning, 1999**).

Researches have shown so far that performance is the end result of Metacognitive awareness. It's very true that metacognition is being used by the students but they have to be clear about the metacognitive strategies used. Though they change their strategies they are not successful always. When the students come across the toughest learning they have to find a strategy for their application.

**Coutinho (2006)** concluded that students with good metacognition tend to be successful students. **Bigozzi & Vezzani (2005)** investigated the effects of individual writing on metacognitive awareness concerning scientific concepts. They found that individual writing enhances the use of metacognitive terms and the frequency of use regarding terms, which distinguish appearance from reality. **Mason & Nadalon (2005)** found that overall students' metacognitive competence significantly correlated with their achievement in subjects.

Higher order thinking (HOT) helps in engaging the students in learning. The planning of how to accomplish an aim or a goal set, is critical as it may always not prove to be worthy. Sometimes the strategies may be manipulated slightly so as to achieve the set goal. The impact that metacognitive awareness creates here is the result of the successful learning of students and the way the students learn to apply the strategies.

**Kurtz and Borkowski (1984) and others (Biggs, 1985; Stipek, 1982)** suggested a positive relationship between the use of metacognition and academic achievement. This positive relationship suggests that as use of metacognition increases, regardless of the approach, one's academic average increases.

**Jacobs & Paris (1987) and Wittrock (1983)** claim that the use of metacognition appears to be related to academic achievement and enhanced learning outcomes. **Watkins and Hattie (1992)** reported that students of high academic achievement tend to utilize strategies congruent with their own motivational states more than lower achieving students. **Maqsud (1997)** investigated the effects of metacognitive skills and nonverbal ability on academic achievement of high school pupils. He found that metacognitive ability tends to associate positively with academic attainment of high school pupils.

Researchers have shown that successful academic adjustment reflects students learning behaviour and academic performance (**Cazan, 2011**).

When students practice metacognition, the act of thinking about their thinking helps them make greater sense of their life experiences and start achieving at higher levels (**Marilyn Price-Mitchell**).

The positive impact of Metacognitive awareness is shown through the high academic performance of the students where it involves the teacher as well as the student.

### IV. Conclusion

The concept of metacognition can be studied in many areas like education, technology, entrepreneurship, mathematics, psychology, learning disabilities, teaching competences etc. Metacognition is a concept that is complex and which has to be measured through various dimensions and it has a great role in the performances and outcomes of the students in academics. A strong impact of metacognitive awareness is seen on the performance of the students. The academicians should be educated and aware of the strategies that has to be inculcated and implemented in the classroom which will result in the upgrading of the metacognitive skills of the students, which in turn will enrich them to show high achievements.

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