



A Study of Metacognitive Awareness Among Secondary School Students in Mumbai

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ABSTRACT

Metacognition plays significant role in successful learning. It includes knowledge about when and how to use particular strategies for learning or for problem solving. It brings understanding about the content and the strategy used for learning. The schools should develop the metacognitive aware among the students. The investigator as a part of doctoral research study tried to find out the metacognitive awareness among the secondary school students in Mumbai. The data was collected from 120 students studying in SSC Board Secondary school in Mumbai. The survey showed that the students have average metacognitive awareness. The result also showed that there is no significant difference in the metacognitive awareness among the girls and boys in secondary schools in Mumbai.

KEYWORDS

Metacognition, Metacognitive awareness, secondary school students

INTRODUCTION

Metacognition refers to higher order thinking which involves active control over the cognitive processes engaged in learning. Activities such as planning how to approach a given learning task, monitoring comprehension, and evaluating progress toward the completion of a task are metacognitive in nature. Because metacognition plays a critical role in successful learning, it is important to study metacognitive activity and development to determine how students can be taught to better apply their cognitive resources through metacognitive control.

"Metacognition" is referred as "thinking about thinking." It comes from the root word "meta", meaning beyond. It includes knowledge about when and how to use particular strategies for learning or for problem solving. There are generally two components of metacognition: knowledge about cognition, and regulation of cognition.

The term "metacognition" is most often associated with John Flavell, (1979). According to Flavell (1979, 1987), metacognition consists of both metacognitive knowledge and metacognitive experiences or regulation. Metacognitive knowledge refers to acquired knowledge about cognitive processes, knowledge that can be used to control cognitive processes. Flavell further divides metacognitive knowledge into three categories: knowledge of person variables, task variables and strategy variables.

Metacognitive Knowledge

Knowledge of person variables refers to general knowledge about how human beings learn and process information, as well as individual knowledge of one's own learning processes. Metacognition also thinks about one's own thinking process such as study skills, memory capabilities, and the ability to monitor learning. Metacognitive knowledge is about our own cognitive processes and our understanding of how to regulate those processes to maximize learning. Some types of metacognitive knowledge would include:

Person knowledge is understanding one's own capabilities,

Task knowledge is how one perceives the difficulty of a task which is the content, length, and the type of assignment,

Strategic knowledge is one's own capability for using strategies to learn information.

Metacognition includes at least three different types of metacognitive awareness. Declarative knowledge refers to knowledge about oneself as a learner and about what factors can influence one's performance. Procedural knowledge refers to knowledge about doing things. A high degree of procedural knowledge can allow individuals to perform tasks more automatically. Conditional knowledge refers to knowing when and why to use declarative and procedural knowledge. It allows students to allocate their resources when using strategies.

Metacognitive Regulation

Metacognitive experiences involve the use of metacognitive strategies or metacognitive regulation (Brown, 1987). Metacognitive strategies are sequential processes that one uses to control cognitive activities, and to ensure that a cognitive goal (e.g., understanding a text) has been met. These processes help to regulate and oversee learning, and consist of planning and monitoring cognitive activities, as well as checking the outcomes of those activities.

Similar to metacognitive knowledge, metacognitive regulation or "regulation of cognition" contains three skills that are essential. Planning refers to the appropriate selection of strategies and the correct allocation of resources that affect task performance. Monitoring refers to one's awareness of comprehension and task performance. Evaluating refers to appraising the final product of a task and the efficiency at which the task was performed.

This study is related to doctoral study of the investigator.

OBJECTIVES:

- To find out the metacognitive awareness of secondary school students.
- To study metacognitive awareness of secondary school students based on their gender.

NEED & IMPORTANCE OF STUDY:

Education has to prepare children to be lifelong learners. Therefore it is essential to develop skills of life-long learning among the students. The students should be made aware of

themselves as learners and know how to control of their own activities. Learners' self-confidence increase by developing metacognitive skills. It raises consciousness about some learning strategies. Metacognitive knowledge is crucial for independent learning in all age groups as it develops self-reflection among the students. Meta cognition improves the learning ability, retention and achievement.

Investigators decided to study the level of metacognitive awareness of secondary school students in Mumbai. As the investigator was working on the Ph.D. topic, she thought it is essential to find the metacognitive awareness among 9th & 10th standard students. Investigators thought that it would be helpful for the teacher educators to guide student teachers in use of appropriate instructional teaching strategies during practice teaching.

METHODOLOGY

The investigators used survey method to study.

SAMPLE

The sample for the study consists of 120 secondary school students from various schools of SSC Board in Mumbai. The data is collected from IX & X standard students. The sample consist of 74 boys and 46 girls. The purposive sampling technique was utilized by the investigators.

TOOL FOR THE STUDY

The investigators used was metacognitive awareness inventory prepared and standardized by Sindhu P.G (2011). It consists of thirty items following 5 point scale. The scale was standardized with reliability coefficient 0.742 which shows high reliability. Reliability is ensured using test-retest method. Validity is ensured as content validity.

FINDINGS

The metacognitive awareness of secondary school students.

28 % students have high metacognitive awareness, 47% students have average metacognitive awareness and 25% students have low metacognitive awareness.

The schools still follow the traditional method of teaching. The high class strength is the major problem faced by the teacher when it comes to utilizing different student centric strategies in the class. Moreover making changes on the school timetable to accommodate sessions using different strategies is very difficult task. Therefore most of the students in the class IX & X have average metacognitive awareness.

The metacognitive awareness of secondary school students based on their gender.

The mean of metacognitive awareness among the boys in the SSC Board secondary school in Mumbai is 109.72. The mean of metacognitive awareness among the girls in the SSC Board secondary school in Mumbai is 112.24. The obtained t- value of $t = 0.6$ which is less than the values for 0.05 levels of significance. Hence there is no significant difference in the metacognitive awareness among the girls and boys studying in SSC Board secondary school in Mumbai.

There is not much difference seen in the mean value of metacognitive awareness among the girls and boys. The mean value of metacognitive awareness among the girls is bit more than mean value of boys. Now a days parents are aware about importance of education for girls. So girls' education and training is provided equal importance. The support from home, motivation and training provided in the school results into developing metacognitive awareness among the children.

CONCLUSION

The finding shows that most of the students have average metacognitive awareness. The schools should promote the classroom activities which will help students to analyse the content they are learning and reflect on the learning process.

Such activities will lead the education system towards child centric process. It will also help in development of lifelong learning skills among the students. The students will be able to identify their strengths and weaknesses and can work on it. This awareness is essential to be successful in life.

REFERENCES:

1. Judy Garrett, Martha Alman, Stephanie Gardner, and Charles Born [2007] Assessing Students' Metacognitive Skills. *Am J Pharm Educ.* February 15; 71(1): 14.
2. Sajna Jaleel, Premachandran. P [2016] A Study on the Metacognitive Awareness of Secondary School Students. *Universal Journal of Educational Research* 4(1): 165-172, <http://www.hrpub.org/> Retrieved on 4th April 2015
3. Eluemuno. A. and Azuka-Obieke. U. The Effect of Metacognitive Skills on Performance in English Language among Senior Secondary School Students in Anambra State, Nigeria *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)* 4(4): 678-685 © Scholarlink Research Institute Journals, 2013 (ISSN: 2141-6990) jeteraps.scholarlinkresearch.org. Retrieved on 4th April 2016
4. <http://gse.buffalo.edu/fas/shuell/cep564/metacog.htm>. Retrieved on 23rd March, 2016
5. Midori SHIKANO []Quantitative Survey on Metacognitive Awareness of Reading Strategy Use in English by Japanese University Students. office.nanzan-u.ac.jp Retrieved on 22nd April 2016.