



# CORRELATION BETWEEN SELF AWARENESS AND METACOGNITION AMONG HIGHER SECONDARY SCHOOLSTUDENTS

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## Abstract

Meta-cognition represents individuals' self-monitoring and self-regulating abilities, and plays a key role in self-managed learning. This study examines the Correlation between Self Awareness and Meta-cognition among Higher Secondary School Students in Kerala. Stratified Random sampling technique was used in this study with sample size of three hundred and eighty (N=380) students from various districts of Kerala. In this study, the investigator administered self awareness test and meta-cognition scale for higher secondary students. Test of significance for difference between means and Carl Pearson's product moment correlation are used for the statistical analysis of the data.

**Keywords:** Self awareness, Meta-cognition and higher secondary school students.

## Introduction

Self-awareness plays a critical role in improved learning because it helps students become more efficient at focusing on what they still need to learn. The ability to think about one's thinking increases with age. Self-awareness refers to the capacity of becoming the object of one's own attention (Duval & Wicklund, 1972). In this state one actively identifies, processes, and stores information about the self. Meta-cognition represents individuals' self-monitoring and self-regulating abilities, and plays a key role in self-managed learning. This study examines two dimensions of meta-cognition - self-efficacy and self-awareness. We aim to understand how self-efficacy and self-awareness influence individuals' metacognitive process and contribute toward increased effectiveness in self-managed learning.

Meta-cognition plays an important role in all learning and life experiences. Beyond academic learning, when students gain awareness of their own mental states. Meta-cognition is simply and commonly defined as “thinking about thinking”. Meta-cognition refers to the knowledge that people have about their own thought processes. The term “meta-cognition” has been used in psychology and education research literature since mid 1970s. It is most often associated with John Flavell, who first used the term formally in the title of his paper in 1976. He defined metacognition as follows: "In any kind of cognitive transaction with the human or non-human environment, a variety of information processing activities may go on.

Meta-cognition refers, 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, usually in service of some concrete goal or objective”. In essence, meta-cognition is the knowledge and the active monitoring of one's own cognitive processes. Indeed, we engage in metacognitive activities every day.

Meta-cognition is often referred to as “thinking about thinking”. Meta-cognition is a regulatory system that helps a person understand and control his or her own cognitive performance. Meta-cognition allows people to take charge of their own learning. Sometimes people use the phrase ‘going meta’ when talking about meta-cognition, referring to the process of stepping back to see what you are doing, as if you were someone else observing it. “Going meta” means becoming an audience of your own performance- in this case, your own intellectual performance. “Metacognition was originally referred to as the knowledge about and regulation of one’s own cognitive activities in learning processes” (Flavell, 1979; Brown, 1978). “Meta-cognition involves awareness of how they learn, an evaluation of their learning needs, generating strategies to meet these needs and then implementing the strategies” (Hacker, 2009).

When students practice meta-cognition, the act of thinking about their thinking helps them make greater sense of their life experiences and start achieving at higher levels. Since antiquity, philosophers have been intrigued with how human beings develop self-awareness the ability to examine and understand who we are relative to the world around us. Today, research not only shows that self-awareness evolves during childhood, but also that its development is linked to meta-cognitive processes of the brain. Developing meta-cognition is important for life as a whole and not only for academic success.

Children should be encouraged to talk about and discuss their thinking. Hartman (2001) states that metacognitive teaching means that teachers think about their own thinking regarding instructional goals, teaching strategies, sequence of lessons, students characteristics and needs and other issues related to curriculum, instruction and assessment before, during and after lessons in order to maximize their instructional effectiveness.

The study of metacognition has provided insight about the cognitive process of learning and what demonstrates successful students from less successful. It also has several consequences for instructional interventions such as teaching students how to be aware of the learning process and product and how to regulate those processes. Anyone can claim that they are teaching, but not every teacher can assertively claim that students are learning. Teachers can assist their students to become successful learners provided if they are teaching specific subject matter they can also show their students how to study the subjects. In other words teachers must improve their learning abilities. Simply providing knowledge without experience or vice versa does not seem to be sufficient for the development of metacognition (Livingston, 1997).

In education metacognition plays an important role. It is closely related to learning styles as well as teaching styles adopted by the teachers. In the process of learning, thought provoking questions are essential for the development of learning abilities of pupils. Teachers can use a variety of strategies to enhance metacognition. Teaching metacognitive can improve classroom communication and facilitate academic performance. Metacognitive teaching not only benefits students but also increases the teachers' own learning and motivation. It enables awareness and control over how teachers think about their teaching (Medway, 1991). The present study aimed to investigate correlation between self-awareness and meta-cognition among higher secondary school students.

### **Objectives of the study**

1. To find out the level of self-awareness among higher secondary school students.
2. To find out the level of meta-cognition among higher secondary school students.
3. To find out whether there exist any relationship between self-awareness and meta-cognition among higher secondary school students.

### **Hypothesis of the study**

1. There is significant relationship in the mean scores of self-awareness and meta-cognition among higher secondary school students.

### **Methodology**

The current study possesses two variables such as self awareness and attitude meta-cognition. Among these, self awareness is the independent variable and meta-cognition is the dependent variable. In this study, the investigator administered self awareness test and meta-cognition scale for higher secondary school students. The reliability of the self awareness test and meta-cognition scale was 0.7 and 0.67 respectively.

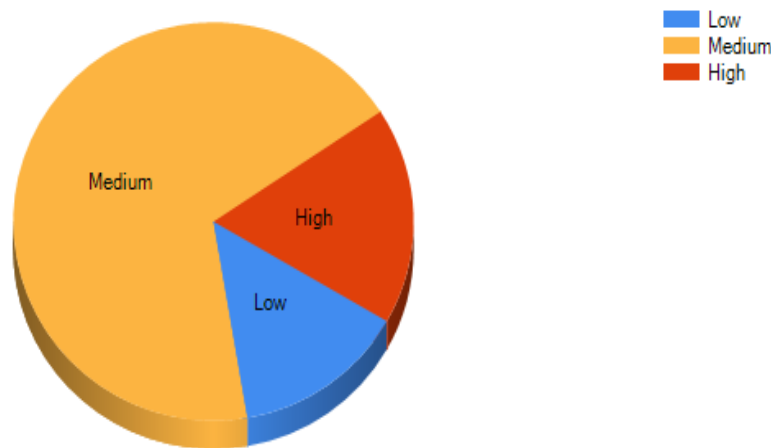
The population of this study was prospective teachers in Kerala. The investigator adopted stratified random sampling method and sample was 380 higher secondary school students from various districts of Kerala. Test of significance for difference between means and Carl Pearson's product moment correlation are used for the statistical analysis of the data.

## Result

**Table 1. Level of self-awareness among higher secondary school students**

Level of self-awareness	N	Percentage
Low	53	13.95
Medium	260	68.42
High	67	17.63

From the table it is clear that 13.95% of higher secondary school students have low level of self-awareness. 68.42% of higher secondary school students have medium level of self-awareness. 17.63% of higher secondary school students have high level of self-awareness.



**Figure 1. Level of self-awareness among higher secondary school students**

**Table 2. Level of Meta-cognition among higher secondary school students**

Level of meta-cognition	N	Percentage
Low	60	15.79
Medium	243	63.95
High	77	20.26

From the table it is clear that 15.79% of higher secondary school students have low level of meta-cognition. 63.95% of higher secondary school students have medium level of meta-cognition. 20.26% of higher secondary school students have high level of meta-cognition.

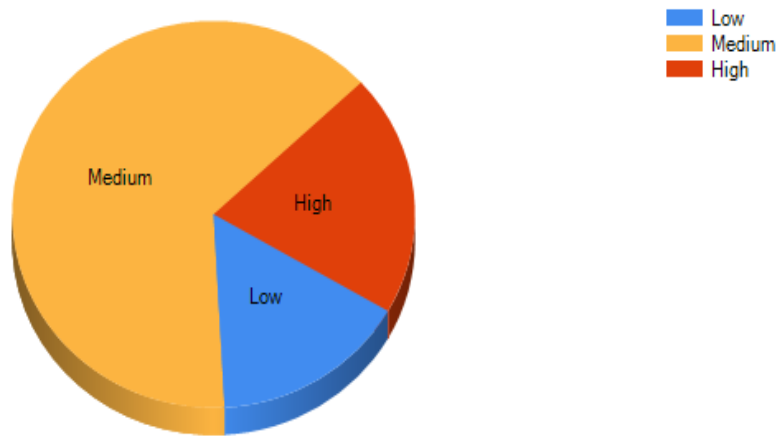


Figure 2. Level of Meta-cognition among higher secondary school students

Table 3. Correlation between self-awareness and meta-cognition among higher secondary school students

N	Coefficient of correlation (r)	t	Level of significance	SEr	95% CI Lower	95% CI Upper	Shared variance
380	0.42	8.96	0.01	0.04	0.34	0.5	17.53

The calculated value of r is 0.42 and is significant at 0.01 level ( $r = 0.42; p < 0.01$ ). Hence it can be concluded that there is significant positive relationship between self-awareness and meta-cognition. The value of shared variance is obtained as 17.53. This means that 17.53% of the variance in one variable can be explained by the other variable.

**Tenability of hypothesis**

The test of significance of relationship between self-awareness and meta-cognition revealed that there is significant relationship between self-awareness and meta-cognition. Hence the null hypothesis formulated in this context is rejected.

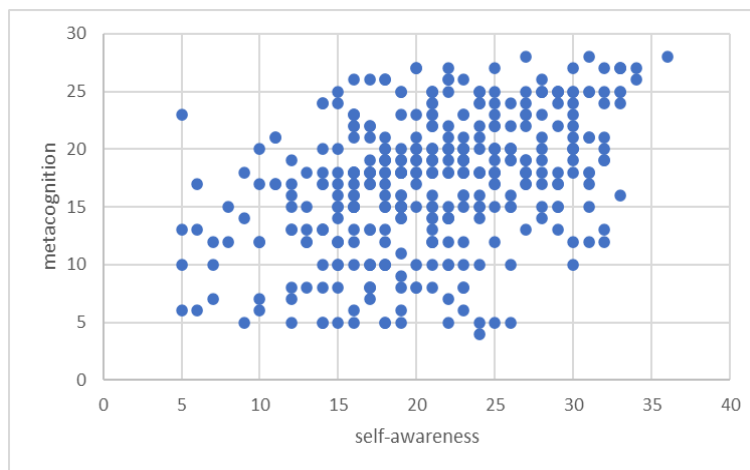


Figure 3. Scatter plot of self-awareness and meta-cognition among higher secondary school students

## Discussion and Conclusion

The present study emphasizes that the relationship between self-awareness and meta-cognition among higher secondary school students. The statistical analysis shows that most of the higher secondary school students (68.42%) have the medium level of self-awareness and 63.95% of higher secondary school students have a medium level of meta-cognition. Correlational analysis explores that there is a significant relationship between self-awareness and meta-cognition.

Meta-cognition enables one to be a successful learner; Meta-cognition 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 meta-cognitive in nature. Because meta-cognition plays a critical role in successful learning, it is important to develop meta-cognition in students, and to do this teachers, parents and the students themselves should play their respective roles to develop the meta-cognitive environment, be it in school or at home, by encouraging more meta-cognitive activities of which some have been mentioned above.

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