

# META-COGNITION AWARENESS AMONG PROSPECTIVE TEACHERS IN RELATION TO THEIR GENDER, LOCALITY, AND LEVEL OF TEACHER EDUCATION

\* **Madhava Kumar Kothapalli**

Research Scholar, Department of Education,  
Krishna University, Machilipatnam

## ABSTRACT

Learners can take charge of their cognition, emotions, and motivation through the process of metacognition. It covers both the understanding of cognition and its control. The objectives of the study revealed that to study the levels of meta-cognition awareness of prospective teachers. To study the effect of the following variables like gender, locality of living, and level of teacher education on the meta-cognition awareness of prospective teachers. Meta-Cognition Awareness Inventory was developed by Govil, P. (2003) and it has 30 items. From 22 colleges of education in the West Godavari district of A.P., one thousand (1000) trainee teachers were selected as a sample. The following statistical methods like mean, SD., percentage and CR were used in this study to analyze the data. Findings showed that the prospective teachers differ in their levels of meta-cognition awareness. The gender, locality of living, and level of teacher education of prospective teachers don't make a significant difference in their meta-cognition awareness.

**Keywords:** Metacognition, Awareness, and Prospective Teachers

## Introduction

A fairly well-known constructivist theory of cognitive development by Piaget appeared in the middle of the 20th century. Piaget's primary discovery was that people create their understanding. The Latin word "Cognoscere," which means "to know, to comprehend, to perceive," is where the word "cognition" originates. It alludes to the application of knowledge, the processing of information, and the modification of preferences. It is a mental process that involves memory, focus, learning, language production and comprehension, reasoning, etc. Whether conscious or not, that is. Metacognition is the knowledge and awareness of the monitoring process, whereas cognition is the continuous flow of information. Because metacognition is regarded as second-order cognition, it is the major difference between cognition and metacognition. The definition of "metacognition" has been hotly contested for the last few decades. Greek term "meta" simply means "after, behind, or beyond." The words meta and cognition both imply "to know." Higher-order cognition about cognition and higher-order thinking, which involves active control over the thought process during learning, are also referred to as "meta" in this context. Metacognition is frequently referred to as the process of reflecting on one's thinking, which is a component of personal epistemology, or one's conceptions

of knowledge and understanding. It refers to cognition, or knowledge of learning and knowing. A person can better comprehend and manage their cognitive phenomena with the use of metacognition, a metacognitive system. Metacognition, according to Hacker et al. (2009), is being aware of students, understanding how to learn, assessing their learning requirements, developing strategies to address those needs, and then putting those strategies into practice.

### **Types of Metacognition**

The two different but connected aspects of metacognition are most frequently separated. One of the pioneers in the study of metacognition and memory, Flavell, distinguished between metacognitive knowledge, or awareness of one's thinking, and metacognitive regulation, or the capacity to control one's thought processes. Together, these two elements help to shape learning theory. Three categories of metacognitive knowledge are described by Flavell (1979).

1. Understanding what one knows, what one does not know, and what one desires to know are all components of knowledge awareness. An awareness of others' knowledge may fall under this category as well.
2. Understanding cognitive tasks and the nature of what is necessary to execute them is aware of thinking.
3. Comprehension techniques to direct learning involve an understanding of thinking strategies.

### **Skills of Metacognition:**

Every time they study, effective learners often employ metacognitive techniques. However, they might not employ the most effective tactic for every kind of learning scenario. The following are a few metacognitive abilities that any learner may

1. Knowing your limitations implies establishing a system of external assistance and being aware of the limits of your memory for a certain activity.
2. Self-monitoring entails keeping an eye on one's learning technique, such as idea mapping, and changing it if necessary.
3. Assessing one's comprehension of what they have just read and, if not, adjusting their strategy.
4. Skimming is the decision to quickly scan through subheadings of unnecessary information to find what you need.
5. Rehearsing is the practice of skill again and over until it is mastered.
6. Test yourself frequently to determine how effectively you have retained what you have learned.

### **Statement of the Problem**

The current research topic is "*Meta-Cognition Awareness among Prospective Teachers in relation to Gender, Locality, and Level of Teacher Education*".

### **Operational definition of the terms:**

**Meta-cognition Awareness:** Flavell, J. H. (1979) defined meta-cognition as "knowledge and cognition about cognitive phenomena." A part of self-consciousness that deals with knowledge of one's mental states and includes an ongoing perception of one's inner reality (Nelson, T. O. & Narens, L., 1990).

### **Prospective teachers:**

The term prospective teachers in this study refer to students who are undergoing training in colleges of education, and colleges of elementary teacher education.

## Need and Significance of the Study

For younger students, the teacher plays a crucial role in the educational process. Making instruction more effective is a constant struggle for all teachers. During this training time itself, teachers must improve their abilities to suit the educational demands of pupils. Metacognition entails awareness of cognition as well as its control. The use of metacognitive tactics by the teacher can encourage students to be curious, think critically, be creative, take initiative, and be self-reliant. Thinking without knowledge is pointless, while knowledge without thought is meaningless. As a result, a teacher's main duty is to communicate information while simultaneously encouraging his students to evaluate his arguments and take appropriate action. All of the knowledge a person has at their disposal regarding a particular task is referred to as metacognitive knowledge. This information directs the person in task management and tells them how successful they will probably be at achieving their goals. The researcher has applied metacognition in this manner. It covers cognition-related information, rules of cognition, and how they affect daily tasks. So the study's title, "Meta-cognition Awareness Among Prospective Teachers concerning Gender, Locality, and Level of Teacher Education," says it all.

## Review of the Related Literature:

College students' metacognition and self-criticism were examined by **Garg and Sharma (2020)** as potential indicators of their fear of happiness. The findings showed that declarative knowledge (metacognition) and appraisal (metacognition) had a substantial predictive value for the dread of pleasure. In the Assam district of Dibrugarh, **Sonowal and MunKalita (2019)** did a study on the metacognitive awareness and academic performance of higher secondary level arts stream students. The findings showed that metacognitive awareness and academic success had a beneficial association. However, there is a favourable correlation between academic success and cognitive management. There is no connection between academic success and cognitive knowledge. The metacognitive awareness of higher secondary level arts stream students is not significantly different depending on their gender, type of management, location, and medium of instruction. **Asikrcan and Saban (2018)** investigated the metacognitive understanding of reading methods among prospective teachers. The findings demonstrated that prospective teachers had high levels of global reading and problem-solving skills and moderate levels of support for reading strategies. When compared to male participants, female individuals had a higher level of metacognitive awareness. Prospective Turkish language teachers have more advanced problem-solving techniques than prospective primary teachers. A study on the effects of metacognitive techniques on prospective teachers' metacognitive awareness and self-efficacy beliefs was undertaken by **Yildiz and Akdag (2017)**. The findings demonstrated that while metacognitive techniques do not raise students' self-efficacy views in scientific instruction, they do boost prospective instructors' metacognitive awareness and self-efficacy beliefs. The pre-and post-test results change significantly as a result.

## Objectives of the study:

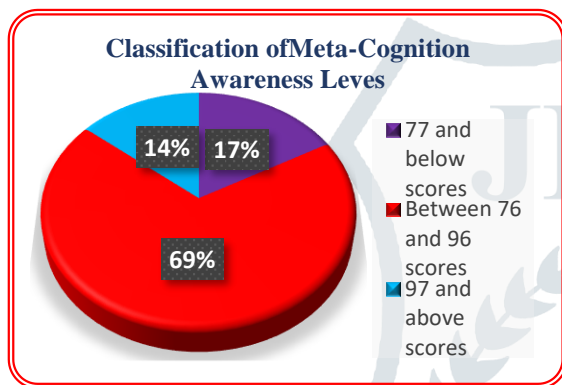
The researcher set out the following specific objectives for this study.

1. To study the levels of meta-cognition awareness of prospective teachers.
2. To study the effect of the following variables on the meta-cognition awareness of prospective teachers.



**H<sub>1</sub>:** It can be observed from table 1 that to test this hypothesis, the following procedure is adopted. The mean and SD of the entire group are calculated on the meta-cognition awareness scores obtained by prospective teachers. The calculated values of the mean and standard deviation are 87 and 10, respectively. Based on the computed mean (M) and standard deviation ( $\sigma$ ), the entire sample was categorized into high (above M + 1SD), moderate (between M - 1SD and M + 1SD), and low (below M - 1SD) meta-cognition awareness groups.

The respondents whose scores are less than 77 are considered to have low meta-cognition awareness. Their number is 169, i.e., 17%. The respondents whose scores are above 97 are considered to have high meta-cognition awareness. Their number is 141, i.e., 14% and the remaining 69% come under moderate meta-cognition awareness.



About 17% of the sample prospective teachers have low meta-cognition awareness. Sixty-nine percent of the sample had moderate meta-cognition awareness, and the remaining 14% of the sample had high meta-cognition awareness. This means that prospective teachers differ in their levels of meta-cognition awareness.

**Table 2:** Data and Result of Test of Significant Difference in The Mean Score of Meta-Cognition Awareness Based On Gender, Locality of living, and Level of teacher education

| Variables          | Sub-variables | N   | Mean  | SD    | D    | $\sigma_D$ | C.R.  | Remarks      |
|--------------------|---------------|-----|-------|-------|------|------------|-------|--------------|
| Gender             | Male          | 238 | 86.68 | 11.10 | 0.61 | 0.81       | 0.75* | NS           |
|                    | Female        | 762 | 86.07 | 10.10 |      |            |       |              |
| Locality of living | Urban         | 251 | 86.29 | 10.97 | 0.09 | 0.78       | 0.11* | @ 0.05 level |
|                    | Rural         | 749 | 86.20 | 10.14 |      |            |       |              |
| Level of TE        | D.Ed.         | 500 | 86.62 | 09.65 | 0.80 | 0.65       | 1.23* |              |
|                    | B.Ed.         | 500 | 85.82 | 11.00 |      |            |       |              |

Table 2 reveals that the obtained C.R. value of 0.75 is smaller than 1.96. At the 0.05 level, it is not significant. The null hypothesis is thus accepted. It may be claimed that male and female prospective teachers do not significantly differ in their awareness of metacognition. The second C.R. value that was obtained, 0.11, is lower than 1.96. At the 0.05 level, it is not significant. The null hypothesis is thus accepted. As a result, prospective teachers' locality of living makes no significant difference in their meta-cognition awareness. The obtained third C.R. value of 1.23 is less than the table value of 1.96. It is not significant at 0.05 level.

Therefore, the null hypothesis is accepted. Hence, the level of teacher education of prospective teachers doesn't make a significant difference in their meta-cognition awareness. The third C.R. value that was obtained, 1.23, is smaller than 1.96. At the 0.05 level, it is not significant. The null hypothesis is thus accepted. Therefore, there is no significant variance between prospective teachers' levels of teacher education on their awareness of meta-cognition.

### Major Findings of the Study:

1. 17% of the prospective teachers that were sampled have a low level of meta-cognition awareness. The remaining 14% of the sample exhibited high meta-cognition awareness, while 69% of the sample had moderate meta-cognition awareness. This indicates that the levels of meta-cognition awareness among prospective teachers differ.
2. Male and female prospective teachers do not significantly differ in their awareness of metacognition.
3. Prospective teachers' locality of living makes no significant difference in their meta-cognition awareness.
4. There is no significant variance between prospective teachers' levels of teacher education on their awareness of meta-cognition.

### Educational Implications:

The teacher training programmes must take into account the fact that prospective teachers' levels of meta-cognition awareness differ, and they must adjust the activities and training modules so that the prospective teachers make the best use of the training opportunities and become better teachers as a result. In addition, these criteria do not need to be given greater weight in teacher training programmes because they have no significant influence on prospective teachers' awareness of their metacognition.

### Conclusion:

"Meta-cognition awareness among prospective teachers regarding gender, locality, and type of teacher education" is the title of the current article. It is determined that there are differences in the levels of meta-cognition awareness among prospective instructors. Therefore, for potential teachers to make the most of their training chances and improve as instructors, teacher training programmes must take this reality into account and design activities and training modules accordingly. The outmoded concerns of these variables are out of date since prospective teachers' meta-cognition awareness is unaffected by their gender, place of residence, or degree of teacher education. It is proposed that this might be given out throughout the design, execution, etc. of teacher training programmes.

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