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# Indian Streams Research Journal



## “META COGNITION AND ACHIEVEMENT MOTIVATION OF UNDER GRADUATE STUDENTS IN TIRUCHIRAPPALLI DISTRICT”



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### ABSTRACT

**M**etacognitive skills are usually conceptualized as an interrelated set of competencies for learning and thinking, and include many of the skills required for active learning, critical thinking, reflective judgment, problem solving, and decision-making. One of the most important factors that lead one to their metacognitive skill is the drive. This drive is known as motivation. It is a passion and determination with a kind of excitement that leads one to persevere to reach greater heights, in no matter what avenue of their life; be it personal or professional. The individual

determines this factors that motivate an individual keep changing as one climbs the ladder of age and maturity. The present study indicates that the levels of Metacognition and Achievement Motivation of undergraduate students are in moderate level. Also this study found that there is no relationship between Metacognition and Achievement Motivation.

**KEYWORDS :** Metacognition and Achievement Motivation , for active learning, critical thinking.

### INTRODUCTION:

Today, one of the main goals of education is to make the students gain the thinking skills and strategies which they will use throughout their lives, rather than storing information. A good education should be able to show the students how to learn, how to remember, how to motivate themselves and how to control their own learning, so that they can teach how to learn. For all these reasons,

metacognitive skills are quite important. The concept of Metacognition has been considered in recent years in the field of education as a concept that is worked on. Metacognition is the awareness one has about his/ her thinking process and how he/she is able to control these processes. Metacognition strategies are the sequential process individuals use to learn how to control themselves and to reach a goal. They significantly help the arrangements and control of the individual learning. Metacognition plays an important role in communication, reading comprehension, language acquisition, social cognition, attention, self-control, memory, self-instruction, writing, problem solving, and personality development.

Metacognitive skills are usually conceptualized as an interrelated set of competencies for learning and thinking, and include many of the skills required for active learning, critical thinking, reflective judgment, problem solving, and decision-making. Adults whose metacognitive skills are well developed are better problem-solvers, decision makers and critical thinkers, are more able and more motivated to learn, and are more likely to be able to regulate their emotions (even in difficult situations), handle complexity, and cope with conflict. Individuals with a high level of metacognitive knowledge and skills identify blocks to learning as early as possible and change ‘tools’ or strategies to ensure goal attainment.

### **NEED AND SIGNIFICANCE OF THE STUDY**

In education, Metacognition plays an important role. It is closely related to learning styles as well as teaching styles adopted by the teacher. In the process of learning, thought provoking questions are essential for the development of learning abilities of pupils. The present educational system is aimed at, besides providing knowledge to the learner, to teach them “learning how to learn”, to organize their thinking processes to solve different problems and to develop competencies to meet future challenges. In the context of present education system, a student needs to acquire information, application of knowledge, judging ability, critical thinking, analytical skills, problem solving, creativity and innovative attitude, aptitude for research, quantitative ability, multidisciplinary knowledge, computer skills, communication skills, soft skills, leadership, working in a team, positive attitudes, broader world view etc. A student develops these competencies and skills in an institution, through the curricular and co-curricular and extra-curricular activities. Sometimes students experience difficulties in acquiring these competencies and behaviors due to their inability to make use of knowledge and skills and take control of their learning. This inability to self-regulate their learning and behavior often results in poor academic performance along with difficulties in social interaction. Lindner and Harris suggested that the self-regulated learner is "organized, autonomous, self-motivated, self-monitoring, self-instructing, in short, behaves in ways designed to maximize the efficiency and productivity of the learning process".

One of the most important factors that lead one to their metacognitive skill is the drive. This drive is known as motivation. It is a zest and determination with a kind of excitement that leads one to persevere to reach greater heights, in no matter what avenue of their life; be it personal or professional. The drive may come from an internal or external source. The individual determines this factors that motivate an individual keep changing as one climbs the ladder of age and maturity. And also, achievement of one goal sets the ball rolling for another one to be achieved. Thus, to be motivated is a constant need. There are times when one faces a period of de-motivation and everything seems bleak. It is then that they need to find what would motivate them back into action. In this background the investigator interested to entitle a study on “Meta Cognition and Achievement Motivation of Under Graduate students in Tiruchirappalli District”.

### **OBJECTIVES OF THE PRESENT STUDY**

The following are the objectives of the present study;

- 1.To find out the level of Metacognition and Achievement Motivation of Under graduate Students.
- 2.To find out whether there is any significant difference between men and women under graduate students in their Metacognition and Achievement Motivation.
- 3.To find out whether there is any significant difference between arts and science under graduate students in their Metacognition and Achievement Motivation.
- 4.To find out whether there is any significant difference between under graduate students of rural and urban colleges in their Metacognition and Achievement Motivation.
- 5.To find out whether there is any significant relationship between Metacognition and Achievement Motivation of under graduate students.

### **HYPOTHESES OF THE STUDY**

- 1.There is no significant difference between men and women under graduate students in their Metacognition and Achievement Motivation.
- 2.There is no significant difference between arts and science under graduate students in their Metacognition and Achievement Motivation.
- 3.There is no significant difference between under graduate students of rural and urban colleges in their Metacognition and Achievement Motivation.
- 4.There is no significant relationship between Metacognition and Achievement Motivation of under graduate students.

### **RESEARCH METHODOLOGY**

For the present study, survey method will be employed. Through the construction of appropriate instrument like questionnaires, the data will be collected.

### **TOOLS USED IN THE PRESENT STUDY**

- 1.Metacognition inventory by Schraw and Dennison (1994).
- 2.Achievement Motivation inventory by Schuler and Prochaska (2001).

### **SAMPLE OF THE PRESENT STUDY**

The under graduate students in the colleges of Tiruchirappalli region will be the population of the present study. From this population 248 under graduate students will be selected by means of stratified random sampling techniques. The sampling will be stratified on the basis of gender, and locality of the college.

### **STATISTICS USED IN THE PRESENT STUDY**

For analyzing the data, the investigator will use mean, standard deviation, percentage analysis''- test, Karl Pearson's product moment correlation.

**ANALYSIS AND INTERPRETATION**

**Percentage Analysis**

**Table 1**

**Table: 1 Shows that the level of Metacognition of under graduate Students**

	Low	Moderate	High
Number	16	217	15
Percentage	6%	88%	6%

**Table 2**

**Table: 1 Shows that the level of Achievement Motivation of under graduate Students.**

	Low	Moderate	High
Number	41	182	25
Percentage	16%	74%	10% <sup>S</sup>

**Differential Analysis**

**Hypothesis: 1 (a)**

There is no significant difference between men and women under graduate students in their Metacognition.

**Table 3**

**Mean score difference between men and women under graduate students in their Metacognition.**

Variable	Sub variable	Mean	Standard Deviation	‘t’ Value	Significance
Metacognition	Men	110.92	13.718	-2.049	S
	Women	114.11	10.668		

(At 5% level of significance the table value is 1.96)

The calculated “t” value of Metacognition of under graduate men and women students is -2.049 which more than the table value. Hence it is significant at 0.05 levels. It is understood from the result that there is a significant difference between the Mean scores on Metacognition level of under graduate students in terms of sex. Hence Hypothesis is rejected.

**Hypothesis: 1 (b)**

There is no significant difference between men and women under graduate students in their Achievement Motivation.

**Table 4**  
**Mean score difference between men and women under graduate students in their Achievement Motivation.**

Variable	Sub variable	Mean	Standard Deviation	‘t’ Value	Significance
Achievement Motivation	Men	52.60	3.833	-0.555	NS
	Women	52.87	3.846		

(At 5% level of significance the table value is 1.96)

The calculated “t” value of Achievement Motivation of under graduate men and women students are -0.555 which is lesser than the table value. Hence it is not significant at 0.05 levels. It is understood from the result that there is no significant difference between the mean scores on Achievement Motivation of under graduate students in terms of sex. Hence the hypothesis is accepted.

**Hypothesis: 2 (a)**

There is no significant difference between arts and science under graduate students in their Metacognition.

**Table 5**  
**Mean score difference between arts and science under graduate students in their Metacognition.**

Variable	Sub variable	Mean	Standard Deviation	‘t’ Value	Significance
Metacognition	Arts	113.33	8.811	2.054	S
	Science	111.86	14.791		

(At 5% level of significance the table value is 1.96)

The calculated “t” value of Metacognition of under graduate arts and science students are 2.054 which more than the table value. Hence it is significant at 0.05 levels. It is understood from the result that there is a significant difference between the mean scores on Metacognition of under graduate students in terms of group of study. Hence Hypothesis is rejected.

**Hypothesis: 2 (a)**

There is no significant difference between arts and science under graduate students in their Achievement Motivation.

**Table 6**

**Mean score difference between arts and science under graduate students in their Achievement Motivation.**

Variable	Sub variable	Mean	Standard Deviation	‘t’ Value	Significance
Achievement Motivation	Arts	53.21	3.464	1.984	S
	Science	52.32	4.105		

(At 5% level of significance the table value is 1.96)

The calculated “t” value of Achievement Motivation of under graduate arts and science students are 1.984 which more than the table value. Hence it is significant at 0.05 levels. It is understood from the result that there is a significant difference between the mean scores on Achievement Motivation of under graduate students in terms of group of study. Hence Hypothesis is rejected.

**Hypothesis: 3 (a)**

There is no significant difference between rural and urban residence of under graduate students in their Metacognition.

**Table 7**

**Mean score difference between Rural and Urban Residence of under graduate students in their Metacognition.**

Variable	Sub variable	Mean	Standard Deviation	‘t’ Value	Significance
Metacognition	Rural	112.05	12.428	-0.635	NS
	Urban	113.05	12.253		

(At 5% level of significance the table value is 1.96)

The calculated “t” value of Metacognition of rural and urban residence of under graduate students are -0.635 which lesser than the table value. Hence it is not significant at 0.05 levels. It is understood from the result that there is no significant difference between the mean scores on Metacognition of under graduate students in terms of residence. Hence Hypothesis is accepted.

**Hypothesis: 3 (b)**

There is no significant difference between rural and urban residence of under graduate students in their Achievement Motivation.



**Table 8**

**Mean score difference between Rural and Urban Residence of under graduate students in their Achievement Motivation.**

Variable	Sub variable	Mean	Standard Deviation	‘t’ Value	Significance
Achievement Motivation	Rural	52.33	3.635	-1.680	NS
	Urban	53.14	3.991		

(At 5% level of significance the table value is 1.96)

The calculated “t” value of Achievement Motivation of rural and urban residence of under graduate students are -1.680 which lesser than the table value. Hence it is not significant at 0.05 levels. It is understood from the result that there is no significant difference between the mean scores on Achievement Motivation of under graduate students in terms of residence. Hence Hypothesis is accepted.

**Correlation Analysis**

**Hypothesis: 4**

There is no significant relationship between Metacognition and Achievement Motivation of under graduate students.

**Table 9**

**Relationship between Meta cognition and Achievement Motivation of under graduate students.**

Variable	Mean	Standard Deviation	‘r’ Value	Significance
Metacognition	112.59	11.80	0.583	NS
Achievement Motivation	52.76	3.78		

(NS\* Correlation is Not Significant at the 0.01 level (2-tailed))

The calculated “r” value of Metacognition and Achievement Motivation of under graduate students are 0.583 which lesser than the table value. Hence it is not significant at 0.01 levels. It is understood from the result that there is no significant correlation between the mean scores on Metacognition and Achievement Motivation of under graduate students. Hence Hypothesis is accepted.

**FINDINGS OF THE STUDY**

1. There is a significant difference between men and women under graduate students in their Metacognition.
2. There is no significant difference between men and women under graduate students in their Achievement Motivation.
3. There is a significant difference between arts and science under graduate students in their Metacognition and Achievement Motivation.

4. There is no significant difference between under graduate students of rural and urban colleges in their Metacognition and Achievement Motivation.

5. There is no significant relationship between Metacognition and Achievement Motivation of undergraduate students.

## **CONCLUSION**

The present study indicates that the levels of Metacognition and Achievement Motivation of undergraduate students are in moderate level. The women undergraduate students are more Metacognition level compared with their counterparts. The men and women students are same in the possession of achievement motivation. Also this study found that the arts undergraduate students are more Metacognition and Achievement Motivation levels compared to the science undergraduate students. On the other side the locality of undergraduate students are same in their possession of Metacognition and Achievement Motivation. Also this study found that there is no relationship between Metacognition and Achievement Motivation.

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