

## **A STUDY OF METACOGNITIVE ABILITY OF COMMERCE STUDENTS IN RELATION TO ACADEMIC ACHIEVEMENT**

**Paramjit Singh**

*Assistant Professor, Khalsa college of Education, Ranjit Avenue, Amritsar.*

### ***Abstract***

*The explosion of knowledge in science and technology has influenced every area of life, including business and commerce. The increasing complexities of commerce organizations in the present world make it obligatory for students to be more practical, creative and active learner. Learning commerce needs deeper, more durable and more transferable thinking. There are various processes which leads to the construction of knowledge like experiential learning, situated learning and metacognition learning. In this regard, the present study was undertaken to study metacognitive ability of +1 commerce students in relation to academic achievement. A sample of 200 students was selected from +1 commerce grade from different schools of Amritsar district. The data was collected by using Punita Govil's metacognitive ability inventory. The results were used to suggest ways for improving academic achievement by using metacognitive ability.*

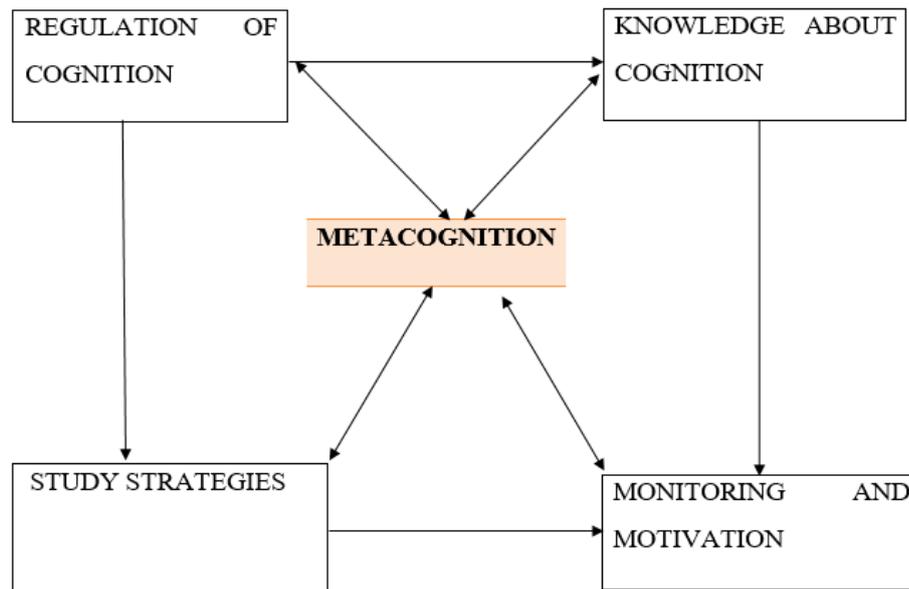


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### **Introduction**

Learning is the process by which an individual acquires various habits and knowledge which develops attitude and experiences that are necessary to meet the needs and demands of life in general. Learning depends, in fact, on the effective use of basic cognitive processes such as memory and attention, the activation of relevant background knowledge and deployment of cognitive strategies to achieve particular goals. To ensure that the basic processes are used effectively, activated knowledge is indeed becomes relevant and the appropriate strategies are being deployed, learners also need to have awareness and control of their cognitive processes. This higher level cognition was given the label of metacognition.

Metacognition refers to one's own knowledge concerning one's own cognitive processes or anything related to them the learning relevant properties of information or data. For example, I am engaging in metacognition if I notice that I am having more trouble learning A than B, if it strikes me that I should double check C, before accepting it as a fact (Flavell, 1976). Metacognitive abilities are classified on the basis of its four dimensions which are depicted in the following flowchart:



**FIGURE 1.1** Flowchart showing Metacognitive abilities

In this highly competitive world, metacognitively aware students can plan their work properly, know how to get and manage the vast information available from different sources, manage their own progress and can evaluate their performance periodically, correcting their mistakes in time. The rise of the global economy, multicultural society and rapid changes in technology requires students to learn and apply new knowledge and skills in their academic and career endeavor. This will lead to the meaningful learning of disciplines such as commerce, where cognition processes are to be applied in which students can meaningfully grasp the study material and improve their academic performance. Commerce is an important subject in the school curriculum which has two main problem areas that cause ineffective learning. These are:

- Less emphasis on practical learning
- Lack of efficient commerce teachers

The fact is that most of the commerce students are unaware of the metacognitive process as they lack in practical orientation and are unable to solve the practical industrial problems and this may be due to the non-availability of textbooks of commerce field which could satisfy their curiosity. This happens because of the lack of management creative skills as well as less interaction of students with practical industry. Learning by Metacognitive Ability is important for better academic achievement in commerce for at least two reasons:-

1. Awareness of one's own thought which is important for developing an understanding of ideas, concepts and problems.

2. Awareness and control of thinking which have a significant impact on problem solving ability in commerce.

The need of hour is to nurture creativity, encourage innovativeness and develop entrepreneurship skills among the commerce students. Voice of new generation is to make them able to use their day to day experiences and richness of their ideas in new learning situations. Along with that to provide opportunities for taking initiatives, thinking fresh, asking questions, rising doubts, evaluating and judging within and outside the classroom for students growing up in today's society where knowledge is infinite. These are the important skills of the Metacognitive Ability which need to be inculcated in the commerce students for better academic achievement.

So, the present study was taken with a view to find out the significant potential role of metacognitive ability of commerce students in achieving their desired academic results and also to suggest ways and means could be taken for improving the performance through metacognition strategies.

#### **Objectives of the study**

1. To study the relationship between the metacognitive ability and academic achievement of commerce students.
2. To compare the metacognitive ability of male and female commerce students.

#### **Hypotheses of the study**

1. There is a significant relationship between metacognitive ability and academic achievement in commerce students.
2. Male and female commerce students significantly differ in their metacognitive ability.

#### **Delimitation of the study**

1. The present study was delimited to 200 students of +1 commerce.
2. The study was confined to schools affiliated to PSEB and CBSE of Amritsar district only.

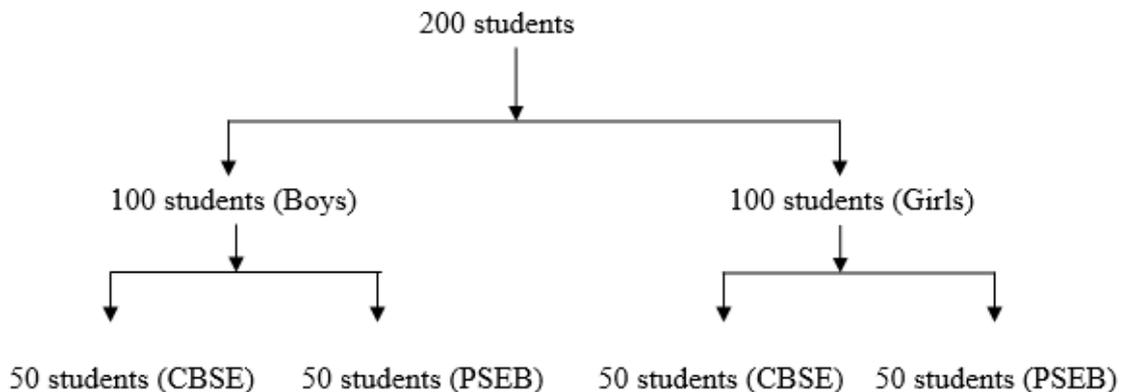
#### **Research design of the study**

In the view of the approach followed the present study falls in the domain of descriptive research completed with correlation approach.

### Selection of sample

Data was collected from randomly selected sample of 200 students studying in +1 commerce grade of different schools of Amritsar district. The school wise and sex wise breakup of the sample is being given in below figure as flowchart:

#### Flow chart: Distribution of the sample



### TOOLS

The following tools was used for the purpose of the present study:

- 1) Meta-cognition inventory by Punita Govil(2003).
- 2) In order to measure academic achievement of secondary school students, marks obtained by the students in the tenth class were recorded from the school records.

### Analysis of the data

To study the nature of the distribution of scores of the variables involved in the study and to justify the use of parametric statistical techniques, the numerical determinants of normality i.e. mean, median, mode and standard deviation were calculated.

#### Numerical determinants of Metacognitive Ability, Academic Achievement

Variables	Mean	Median	Mode	S.D.
Metacognitive ability	85.5	86.37	88.11	12
Academic Achievement	65.4	66.67	69.2	14.22

### Hypothesis 1

There is significant relationship between Metacognitive Ability and Academic Achievement in +1 Commerce students.

Karl Pearson coefficient of correlation( $r$ ) was applied to study the intensity of interrelationship between the metacognitive ability and academic achievement. The results is being reported in the table:

**Correlation between Metacognitive Ability and Academic Achievement**

Variables	'r'	Degree of freedom	Inference
Metacognitive ability	0.20	198	Significant at 0.01 level
Academic achievement			

A close scrutiny of the results inserted in table reveals out that Metacognitive Ability and academic achievement show correlation of 0.20. The positive sign of correlation indicates that the higher the Metacognitive Ability of the students, the higher will be the Academic Achievement of students. This result is quite in conformity with results of the studies conducted by Nanda, et al (1994), Kaniel, Licht and Peled (2000), Basant (2000), Thomas and Barksdale-Ladd (2000), Desoete, Roeyers and Buysee (2001), Hall (2001), who also found significant positive relationship between Metacognitive Ability and Academic Achievement of higher secondary school students

Hence the hypothesis namely 'There is significant relationship between Metacognitive Ability and Academic Achievement of +1 commerce students' stands accepted.

**Hypothesis 2**

**Male and Female commerce students significantly differ in their Metacognitive Ability.**

Raw scores obtained by Male and Female commerce students on Metacognitive Ability inventory were tabulated. Mean scores on Metacognitive Ability and S.D's of Male and Female were calculated and further 't' value was calculated to test the significance of difference between the mean scores of Male and Female on their Metacognitive Ability. This result is being reported in table:

**Significance difference between the Mean Metacognitive Ability scores of Male and Female students**

Variables	Male N=100		Female N=100		't'	Inference
	M	S.D	M	S.D		
Metacognitive Ability Scores	85.70	12.43	85.10	13.62	0.326	Not significant at 0.01 level

Mean scores of Metacognitive Ability of Male and Female students are 85.70 and 85.10 respectively. The obtained 't' value is 0.326 which is not significant at 0.01 level, which means that Male and Female students do not differ in their Metacognitive Ability. Thus, it is evident from the above results that globalization and advancements in technology are driving changes in the Females basic skills as well as in reading critically, write persuasively, think and reason logically, and solve complex problems. Hence, it may be concluded that Male and Female students are equally competent in using their Metacognitive Ability.

So, the hypothesis that is '**Male and Female commerce students significantly differ in their Metacognitive Ability**' stands rejected.

#### **Finding of the study**

1. A close scrutiny of the results reveals that the metacognitive ability and academic achievement have positive correlation which indicates that the higher the metacognitive ability of the students, the higher will be the academic achievement of students.
2. Furthermore this may also be concluded that both Male and Female students are equally competent in using their Metacognitive Ability.

#### **References**

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