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# **Effect of Study Habit in Academic Achievement in Relation to Meta Cognitive Skill in Secondary School Students**

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*Project Report Submitted to Midnapore City College  
for the Partial Fulfillment of the Degree of  
Master of Arts (Education)*

*Submitted by*

ANUP SANTRA, DIPANWITA SAINIK, ESHA PATRA, HEMALI HANSDA, KRISHNA  
MANNA, LABANI KOLEY, MADHUMITA MIDYA, MALAY KUMAR BHUNIA,  
MANAS MAITY, MANTI PRADHAN

Under supervision of

**Mr. Prasanta Kumar Ghata**

Assistant Professor, Dept. of Humanities



Department of Humanities

**MIDNAPORE CITY COLLEGE**

Kuturiya, P.O. Bhadutala, Pin-721129  
Paschim Medinipur  
West Bengal, India

**2023**

## Declaration

We hereby declare that the present Master thesis entitled '*Effect of Study Habit in Academic Achievement in Relation to Meta Cognitive Skill in Secondary School Students*' embodies the original research work carried out by us in the Department of Education, Midnapore City College, Paschim Medinipur, West Bengal, India under the supervision of Mr. Prasanta Kumar Ghata, Assistant Professor, Education, Midnapore City College, Kuturiya, P.O. Bhadutala, Pin-721129, Paschim Medinipur, West Bengal, India. No part thereof has been submitted for any degree or diploma in any University.

Date: 26.07.2023

**Anup Santra**

**Labani Koley**

Place: Midnapore City College,  
Paschim Medinipur

**Dipnawtia Sainik**

**Madhumita Midya**

**Esha Patra**

**Malay Kumar Bhunia**

**Hemali Hansda**

**Manas Maity**

**Krishna Manna**

**Manti Pradhan**

## Approval Sheet

This project report entitled (*Effect of Study Habit in Academic Achievement in Relation to Meta Cognitive Skill in Secondary School Students*) by (Anup Santra, Dipanwita Sainik, Esha Patra, Hemali Hansda, Krishna Manna, Labani Koley, Madhumita Midya, Malay Kumar Bhunia, Manas Maity, Manti Pradhan) is approved for the degree of *Master of Arts (Education)*.

(Signature of Examiners)

(Name..... )

(Signature of Guide)

(Name: Mr. Prasanta Kumar Ghata)

(Signature of Principal/TIC)

(Name: Dr. Kuntal Ghosh)

(Signature of Director)

(Name: Dr. Pradip Ghosh)

Date :

Place: Midnapore City College, Paschim Medinipur

## **Dedicated to our Parents**

This thesis is dedicated to our parents for their endless love, support and encouragement throughout our thesis or this journey. We hope this achievement will fulfill the dream they envisioned for us.

We're thankful to our parents.

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We would like to thank our thesis advisor Mr. Prasanta Kumar Ghata of the Department of Education at Midnapore City College. The door to Prof. Ghata office was always open whenever we ran into a trouble spot or had a question about our research or writing. He consistently allowed this paper to be our own work, but steered us in the right the direction whenever he thought we needed it.

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**Anup Santra**

**Dipnawtia Sainik**

**EshaPatra**

**Hemali Hansda**

**Krishna Manna**

**Labani Koley**

**Madhumita Midya**

**Malay Kumar Bhunia**

**Manas Maity**

**Manti Pradhan**

## **Abstract**

The title of the present study is Effect of Study Habit in Academic Achievement in Relation to Meta Cognitive Skill in Secondary School Students. The objectives of the study are to identify the relation between metacognitive skill and academic achievement in secondary school students, to identify the relation between habit pattern and academic achievement in secondary school students, to identify the difference between boy and girl students in academic achievement in reference to metacognitive skill and habit pattern. The study is conducted by causal comparative study of descriptive research method. Two self-made questionnaires, (Habit and Metacognitive skill) is constructed and standardized by researcher for this study. We find out the significant correlation between metacognitive skill and academic achievement in secondary school students. significant difference between boy and girl students in academic achievement in reference to metacognitive skill and habit pattern'.

## **List of Table**

<b>Table No.</b>	<b>Title</b>	<b>Page No.</b>
1.	Sampling Design	10
2.	Correlation between male and female students in first school	12
3.	Correlation between male and female students in second school	13
4.	Correlation between male and female students in third school	13
5.	Correlation between male and female students in fourth school	14
6.	Correlation between male and female students among all school	15
7.	t-Test: Paired Two Sample for Mean	15
8.	Male & Female Difference among all school	16

## **List of Figures**

<b>Figures No.</b>	<b>Name of Figures</b>	<b>Page No.</b>
1.	Eight (8)Way to Develop Metacognitive skills	5
2.	Correlation Difference among schools	18
3.	Male and female mean & variance	18



## Content List

Chapter	Content	Page No
	<ul style="list-style-type: none"><li>• Certificates</li><li>• Declaration</li><li>• Approval Sheet</li><li>• Dedicated</li><li>• Acknowledgement</li><li>• Abstract</li><li>• List of Tables</li><li>• List of Figures</li></ul>	
❖ Chapter- 1	<b>1.0 Introduction</b>	<b>1-5</b>
	1.1 Importance of academic achievement	
	1.2 Characteristics of metacognition	
	1.3 Benefits of metacognition	
❖ Chapter- 2	<b>2.0 Literature Review</b>	<b>5-8</b>
❖ Chapter- 3	<b>3.0 Aim and Objectives and Hypothesis</b>	
	3.1 Aim	
	3.2 Objectives	
	3.3 Hypothesis	
❖ Chapter- 4	<b>4.0 Methods</b>	<b>10-11</b>
	4.1 Population	
	4.2 Sample	
	4.3 Sampling	
	4.4 Sampling design	
	4.5 Tool	
❖ Chapter- 5	<b>5.0 Result</b>	<b>11-19</b>
❖ Chapter- 6	<b>6.0 Discussion</b>	<b>20-21</b>
❖ Chapter- 7	<b>7.0 Conclusion</b>	<b>22-22</b>
❖ Chapter- 8	<b>8.0 Future Scope</b>	<b>23-23</b>
❖ References		<b>24-25</b>
	<ul style="list-style-type: none"><li>• Book reference</li><li>• Web reference</li></ul>	

## ❖ **Appendix**

- Tool- 1 Study Habit
- Tool- 2 Metacognitive skill
- Scoring
- Certificates of school

## **1.0 Introduction**

Education is the most important invention by man. Education makes a person rational, capable and responsible. Education helps the people to become more knowledgeable about the world, more sensitive and understanding of their relationship to it, and more eager to contribute the civilizing process.

Academic achievement of student is one of the main indicators used to evaluate the quality of education in universities, colleges, and school. Academic achievement is a complex process that is influenced by various factors, such as study habit. Study habit is different individual behavior in relation to studying and is a combination of study method and skill. Study habit include behaviors and skills that can increase motivation and convert the study into an effective process with high returns which ultimately increase the learning. Listening and note taking are important for school and careers. Student identify the most relevant information they need to retain and write it down in order to review it later.

Good (1959) defines “Academic Achievement as the knowledge attained or skill developed in the school subjects, usually designated by test scores or marks assigned by the teachers.”

The academic performance involves factors such as the intellectual level, personality, motivation, skills, interests, study habits, self-esteem or the teacher-student relationship.

### **1.1 Importance of academic achievement: -**

1. A good academic achievement give the child a sense of accomplishment.
2. Academic achievement can help the child get into a good college.
3. Academic achievement can lead to better job opportunities.
4. Academic achievement can help the child develop important life skills.
5. Academic achievement can lead to higher earnings later in life.
6. Academic achievement can help the child to develop a love for learning.
7. Academic achievement can lead to better health later in life.
8. Academic achievement can help the child develop a strong work ethic

9. Academic achievement can improve the self-confidence of the child.

10. Academic achievement can help kids attain a sense of satisfaction and accomplishment.

Study habit include behavior and skills that can increase motivation and convert the study into an effective process with high returns which ultimately increase the learning.

According to Romeo M. Losare Jr. (2009) “study habits simply mean how a pupil manages his/ her time in such a way that he/she can review and study regularly. He also said that Study habits are the ways that you study - the habits that you have formed during your school years.”

According to Azikiwe (1998), “good study habits are good assets to learners because the (habits) assist students to attain mastery in areas of specialization and consequent excellent performance, while opposite constitute constraints to learning and achievement leading to failure.”

Study habit is an action such as reading taking notes, holding study groups which the students perform regularly and habitually in order to accomplish the task of learning.

According to Crow & Crow (1992) the effective habits of study include plan/place, a definite time table and taking brief of well-organized notes. To study successfully a student must decide what information is important and then from opinions concerning it.

Meta cognition has been defined asking “one’s knowledge concerning “one’s own cognitive process or anything related to them “and commonly referred to as thinking about one’s thinking”. Meta cognition plays an important role in communication, reading comprehension language acquisition, social cognition, attention self-control, memory, self-instruction, writing, problem solving and personality development.

- It is purposeful and foresighted Metacognitive activity begins in the human mind with the purpose of learning.
- It is directed towards achieving a learning outcome.
- Metacognitive can take place while learning both cognitive and affective learning tasks.
- It also involves activity monitoring and self-regulation. Hence, learner continuously monitors his/her progress through the learning task.

From the above characteristics, it can also be said that metacognition is - Self -directed, self-monitored, self-regulation, self-assessed, self-evaluated.

Metacognitive skills are strategies applied consciously or automatically during learning, cognitive activity, and communication to manipulate cognitive processes before, during, or after a cognitive activity (Flavell, 1976, 1979). Examples are executive function processes such as verbal mediation, self-regulation, planning, judgment, and self-monitoring.

Metacognitive skills are important because they help individuals understand their learning processes and how they learn effectively. Further, metacognitive skills help people learn information quickly and retain information for their educational or professional development. Metacognitive practices help learners to plan, monitor and evaluate their own progress and take control of their own progress and take control of their learning as they read, write and solve problems in the classroom. Research indicates that metacognition is a powerful predictor of learning.

Metacognitive practices make a unique contribution to learning over and above the influence of cognitive ability. The implication of this research is that improving a learner's metacognitive practices may compensate for any cognitive limitations they may have (Venman et al. 2004 & Wang et al. 1990).

Metacognitive practices have been shown to improve academic achievement across a range of ages, cognitive abilities and learning domains. This includes reading and text comprehension, writing, mathematics, reasoning and problem solving, and memory (Dignath & Buttner, 2008; EEF, 2019; Hattie 2009).

Metacognitive skills can help students to transfer what they have learnt from one context to the next, or from a previous task to a new task. The teacher can support this by explaining how what has been learnt from one task can be applied to the next. It is purposeful and foresighted metacognitive activity beings in the human mind with the purpose of learning. It is directed towards achieving a learning outcome. Metacognitive skills are important because they help

individuals understand their learning. The teacher can support this by learnt from one task can be applied to the next.

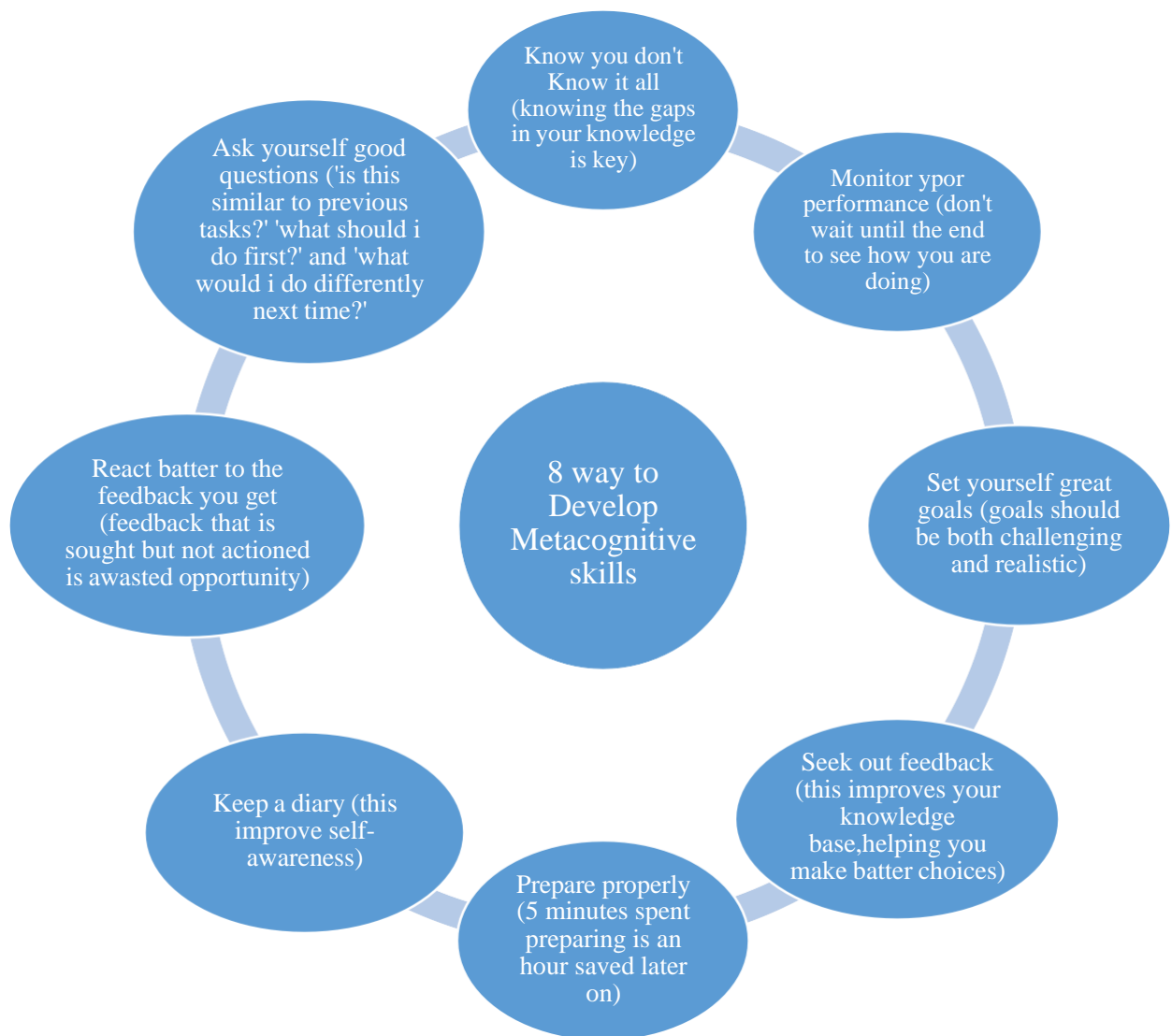
### **1.2 Characteristics of Metacognition:**

- i) Metacognition is intentional in nature. It begins before cognition takes place.
- ii) It is both conscious as well as unconsciously.
- iii) Metacognition can take place while learning both cognitive and affective learning tasks.
- iv) It also involves active monitoring and self-regulation. Hence, learner continuously monitors his/her progress through the learning task.

From the above characteristics, it can also be said that metacognition is- Self-Directed, Self-Monitored, Self-Regulated, Self-Assessed, Self-Evaluated.

### **1.3 Benefits of metacognition: -**

- Metacognitive practices help learners to monitor their own progress and take control of their learning as they read, write, and solve problems in the classroom.
- Research indicates that metacognition is a powerful predictor of learning. Metacognitive practices make a unique contribution to learning over and above the influence of intellectual ability. The implication of this research is that improving a learner's metacognitive practices may compensate for any cognitive limitations they may have (Venman, Wilhelm, & Beishuizen, 2004; Wang, Haertel, & Walberg 1990).
- Metacognitive practices have been shown to improve academic achievement across a range of ages, cognitive abilities, and learning domains. This includes reading and text comprehension, writing, mathematics, reasoning and problem solving, and memory (Dignath & Büttner, 2008; Dignath, Buettner, & Langfeldt, 2008).
- Metacognitive skills help students to transfer what they have learnt from one context to the next, or from a previous task to a new task.



**Figure – 1: 8 way to Develop Metacognitive**

## 2.0 Literature Review

**Maqsud (1997)** investigated the relationship between meta- cognitive strategies and academic achievement having a sample of one hundred forty students from South Africa. The analysis of the data indicated that there was significant positive relationship between meta-cognitive strategies and academic achievement of students. Finding of the study also showed sex difference of students in mathematics.

**Landine and Stewart (1998)** examined the relationship between meta-cognitive and academic achievement of 12<sup>th</sup> graders by taking a sample of one hundred students in New Brunswick and New found and. Pearso<sup>n</sup>'s coefficient correlation was used to analyze the data. The result showed a significant positive relationship between meta-cognitive and academic achievement of student.

**Tarban, Rynearson, and Kerr (2000)** examined the relationship between meta-cognitive skills and learning outcomes among university freshmen. They investigated the meta-cognitive strategies commonly used by the students and which strategies were helpful for their academic performance. The findings of the study revealed that meta-cognitive strategies for reading comprehension could improve college student's academic performance.

**Ponnusamy (2006)** investigated the impact of meta-cognitive strategies among lower achievers in secondary school. Research was concluded using a quasi-experimental design with pre and post-test. The result showed that meta-cognitive and problem-solving strategies had a significant impact on academic achievement meta-cognitive awareness and meta-cognitive knowledge.

**Saravankumar & Mohan (2007)** worked on enhancing the level of meta-cognition orientation and attention and activation techniques towards enhancing student achievement in science. The result of the study revealed that gradual increase in the dependent variable namely, students' achievement in science from initial assessment to final assessment indicates the influence of the independent variable viz, metacognition orientation and attention activation strategies.



**Ibe (2009)** investigated a study on effect of meta-cognitive strategies on students' achievement in senior secondary school science classroom. From the result, it was revealed that the meta-cognitive strategies were most effective in enhancing the academic achievement followed by TSP (Think Pair Share). The researcher recommended that meta-cognitive strategies and questions be in fused in the classroom so as to help students to learn material more efficiently, retain information longer, and generalize skills.

**Kanmani & Annaraja (2009)** studied on metacognition and achievement its computer science degree students. The result of the study revealed that among that female student had better metacognition than the male students. Government aided college students and students studying in women's college had better metacognition than the co-education college students.

**Rajkumar (2010)** worked on analysis the role of metacognitive skills involved in the process of problem solving in physics higher secondary students. The result of the study revealed that there was continuous steady increase in the mean scores of the experiment group student in pre-test, post-test1, and post test2 in all metacognitive skills. This showed that changing the learning environments; conducting group discussions and laboratory activities enhance the problem-solving skills in physics among higher secondary students.

**Remziye et al. (2011)** worked on success on science process skills and science attitudes. Results of the study revealed that use of inquiry-based teaching methods significantly enhances students' science process skills and attitudes.

**Lavinia et al. (2011)** studied on the role of metacognition in reading comprehension of students in reading texts from science textbooks. Results suggested that pupils generally use various metacognitive strategies in reading science texts.

**Akpunar (2011)** worked on effect of weblog-based instruction on the metacognition levels of pre-service teachers. The result showed that web-log based instruction had a significant effect on the metacognition levels of student teacher candidates.

**Aydin & Coskun (2011)** studied on to analyze geography teacher candidates' metacognitive awareness. The of the study revealed that geography teacher candidates' have a medium-high level metacognitive awareness. According to result of the study, metacognitive awareness

scores of geography teacher candidate did not show significant differences according to gender and class level variable.

**Kanesa et al. (2012)** studied onto find the effectiveness of inquiry-based teaching of metacognitive. The result of the study revealed that explicit instruction in metacognitive strategies to teachers and their student had increase the ability to become more aware of their observations, decisions and thought process needed to do and understand. The metacognitive strategies provided teachers with concrete actions and thought process to reflect upon. Teaching science as inquiry provide the language to allow teachers and students to discuss, and ultimately assess, their metacognitive growth. Metacognitive reflection coupled with disciplinary inquiry had the potential to effect change in the teaching of scientific process and scientific thought. With the result that students become better critical thinkers and more scientifically literate.

**Shoaakazemi, Javid, Keramati, and Tazekand (2013)** examined the relationship between meta-cognitive skills and academic achievement of students. Sample was consisted of 100 students. For data analysis, Pearson's correlation and regression tests were used. Result of the study concluded that there was significant and positive relationship between three variables in which happiness could predict academic achievement & problem-solving self-regulation of students and moreover keep them away from the depression and other mental and physical disorders.

**Amzil and Stine-Morrow (2013)** studied the relationship between meta-cognition and academic achievement in college students. Findings indicated that both meta-cognitive monitoring and control are good predictors of academic performance in college, while meta-cognitive knowledge is not. Moreover, consistent with the idea that relatively poor monitoring skills contribute to lower academic achievement, ratings of confidence revealed that low achievers tend to over-estimate their performance.

**Chowdhry (2013)** examined the relationship between meta- cognition and academic achievement of XI standard students studying in school affiliated to C.B.S.E. A sample participant for the research. As a result, a positive and significant relationship was found between meta-cognition and academic achievement of XI students studying in schools affiliated to C.B.S.E.

**Sandhu & Sidhu (2015)** studies an “Awareness Training Model and Constructivism as related to Acquisition of concepts of science. The results revealed that Awareness training Model and Constructivism plays a central role in Acquisition of concepts of science.

**Adak (2017)** worked on constructivist strategy is efficient on secondary level academic achievement in science. The research findings indicate that the student taught by the constructivist 7E-model performed significantly greater than the student taught by traditional methodology. He recommended that in order to enhance the accomplishment of knowledge at secondary level in science constructivist 7E-model strategy can be employed.

### **3.0 Aims, Objectives and Hypothesis**

#### **3.1 Aims**

To identify student (categorically) academic achievement status in respect of metacognitive skill, habit pattern.

#### **3.2 Objectives**

- To identify the relation between metacognitive skill and academic achievement in secondary school students.
- To identify the relation between habit pattern and academic achievement in secondary school students.
- To identify the difference between boy and girl students in academic achievement in reference to metacognitive skill and habit pattern.

#### **3.3 Hypothesis**

**H01:** There is no significant relation between metacognitive skill and academic achievement in secondary school students.

**H02:** There is no significant relationship between habit pattern and academic achievement in secondary school students.

**H03:** There is no significant difference between boy and girl students in academic achievement in reference to metacognitive skill and habit pattern.

## 4.0 Methods

### 4.1 Population:

A population is a complete set of people with a specialized set of characteristics.

Population of the present study higher secondary Bengali medium schools in West Bengal.

### 4.2 Sample:

A sample is a subset of individuals from a larger population.

The sample consists of 200 (Boys and Girls) higher secondary school students from various schools of West Bengal are selected.

### 4.3 Sampling:

Sampling means selecting the group that you actually collect data from your research.

Systematic Random sampling method used for the study.

### 4.4 Sampling design:

Five schools selected for the study.

A causal comparative study of descriptive research method applied for this study.

*Table No. 1: Sampling Design*

<b>Number of Schools</b>	<b>M</b>	<b>F</b>
1	20	20
2	20	20
3	17	23
4	18	22
5	40	00

#### **4.5 Tool:**

Tools are instruments used to collect information for performance assessments evaluation & external evaluations. It is also a testing device for measuring a given event such as a questionnaire, an interview or set of guidelines or checklist for observation.

Two self-made questionnaires, with 19 questions in (Habit) & 10 question in (Metacognitive skill) constructed and standardized by researcher for this study. Also, researchers took an open-ended unstructured interview for academic achievement. The tolls are comprised with five point (strongly agree, agree, neutral, disagree, strongly disagree).

## 5.0 Result

The data analyzed by descriptive statistics, graphical presentation and the difference between two variables calculated by t-test.

So, after the testing null hypothesis we found some significant relation and differences among students.

According to the first objectives of this study ‘to identify the relation between metacognitive skill and academic achievement in secondary school students’ and respected hypothesis is ‘there is no significant relation between metacognitive skill and academic achievement in secondary school students.

Based on the testing of first hypothesis, we found that there has significant relation between meta-cognitive skill and academic achievement among boy and girl students of first school. So, we can say that there we found the impact of meta cognitive skill and academic achievement.

***Table No. 2: Correlation between male and female students in first school***

	Male	Female
Column 1	1	
Column 2	<b>0.967457953</b>	1

There has significant relation between male and female student, the coefficient of correlation value is 0.967457953, relation is positive. So, we can conclude that there has relation between metacognitive skill and academic achievement in secondary school students.

According to the first objectives of this study ‘to identify the relation between metacognitive skill and academic achievement in secondary school students’ and corresponding hypothesis is there is no significant relation between metacognitive skill and academic achievement in secondary school students.

Based on the testing of first hypothesis, we found that there has significant relation between meta-cognitive skill and academic achievement among boy and girl students of second school.

So, we can say that there we found the impact of meta cognitive skill and academic achievement

***Table No. 3: Correlation between male and female students in second school***

	Male	Female
Column 1	1	
Column 2	<b>0.898917298</b>	1

There has significant relation between male and female students, the coefficient of correlation value is 0.898917298, relation is positive. So, we can conclude that there has relation between metacognitive skill and academic achievement in secondary school students.

According to the first objectives of this study ‘to identify the relation between metacognitive skill and academic achievement in secondary school students’ and corresponding hypothesis is ‘there is no significant relation between metacognitive skill and academic achievement in secondary school students.

Based on the testing of first hypothesis, we found that there has significant relation between meta-cognitive skill and academic achievement among boy and girl students of third school. So, we can say that there we found the impact of meta cognitive skill and academic achievement.

***Table No. 4: Correlation between male and female students in third school***

	Male	Female
Column 1	1	
Column 2	<b>0.558909317</b>	1



There has significant relation between male and female student, the coefficient of correlation value is 0.558909317, relation is positive. So, we can conclude that there has relation between metacognitive skill and academic achievement in secondary school students.

According to the first objectives of this study ‘to identify the relation between metacognitive skill and academic achievement in secondary school students’ and corresponding hypothesis is ‘there is no significant relation between metacognitive skill and academic achievement in secondary school students.

Based on the testing of first hypothesis, we found that there has significant relation between meta-cognitive s kill and academic achievement among boy and girl students of fourth school. So, we can say that there we found the impact of meta cognitive skill and academic achievement.

***Table No. 5: Correlation between male and female students in fourth school***

	Male	Female
Column 1	1	
Column 2	<b>0.692296385</b>	1

There has significant relation between male and female students, the coefficient of correlation value is 0.692296385, relation is positive. So, we can conclude that there has relation between metacognitive skill and academic achievement in secondary school students.

So, after the testing null hypothesis we found some significant relation and differences among students.

According to the second objectives of this study ‘to identify the relation between study habit pattern and academic achievement in secondary school students’ and respected hypothesis is ‘there is no significant relation between study habit pattern and academic achievement in secondary school students.

Based on the testing of second hypothesis, we found that there has significant relation between study habit patter and academic achievement among boy and girl students among all school. So, we can say that there we found the impact of study habit pattern and academic achievement.

**Table No. 6: Correlation between male and female students among all school**

	M	F
Column 1	1	
Column 2	0.4848	1

There has significant relation between male and female student, the coefficient of correlation value is 0.4848, relation is positive. So, we can conclude that there has relation between study habit pattern and academic achievement in secondary school students.

So, after the testing null hypothesis we found some significant relation and differences among students.

According to the third objectives of this study ‘to identify the difference between boy and girl students in academic achievement in reference to metacognitive skill and habit pattern’ and respected hypothesis is ‘there is no significant difference between boy and girl students in academic achievement in reference to metacognitive skill and habit pattern’.

This objective is tested with difference, the result of the study of third hypothesis is here have significant difference between boy and girl students in academic achievement in reference to metacognitive skill and habit pattern among all school.

**Table No. 7: t-Test: Paired Two Sample for Means**

	Male	Female
Mean	<b>55.22352941</b>	56.47058824

There have significant mean difference between male and female student, the descriptive of mean difference value is 55.22352941 (male) and 55.22352941 (female), relation is positive. So, we can conclude that there have significant difference between boy and girl students in academic achievement in reference to metacognitive skill and habit pattern’.

**Table No. 8: Descriptive analysis of male and female scores**

	M	F
Mean	55.22352941	56.47058824
Standard Error	1.173698091	1.403024342
Median	62	52.5
Mode	40	39
Standard Deviation	15.30315083	18.29319933
Sample Variance	234.1864253	334.6411417
Kurtosis	-1.672875063	-1.398085698
Skewness	-0.074866297	0.241807084

From the above table (table- 7) we find the mean, median, SD, kurtosis and skewness.

Mean is the average of the given numbers and is calculated by dividing the sum of given numbers by the total number of numbers.

We find that mean between male (M- 55.224) and female (M- 56.5) are not equal. So there have a difference between male and female mean score.

The median is the middle number in a sorted, ascending or descending list of numbers and can be more descriptive of that data set than the average. It is the point above and below which half (50%) the observed data falls, and so represents the midpoint of the data.

We find that median between male (ME- 62) and female (ME- 52.5) are higher than female. It's mean that male average score is high than female. We are also find that male metacognitive skill is better than female.

- 1) The median is the exact mid-point of series bellow and above which 50 % of cases lie. Therefore, when the exact mid-point of distribution is desired. Median is to be computed.
- 2) The median is not affected by the extreme scores in the series. Therefore, when a series contains, extreme scores the median is perhaps the most representative central measure.
- 3) In the case of open-end distribution, it is possible to calculate the mean and hence, the median is most reliable measure that can be computed.

A standard deviation (or  $\sigma$ ) is a measure of how dispersed the data is in relation to the mean. Low standard deviation means data are clustered around the mean, and high standard deviation indicates data are more spread out.

We find that standard deviation between male (SD- 15.303) and female (SD- 18.293) are higher than male. It's mean that male SD is normal than female.

- 1) we need a most reliable measure of variability.
- 2) There is a need of computation o of the correlation coefficients, significant of difference between means and like.

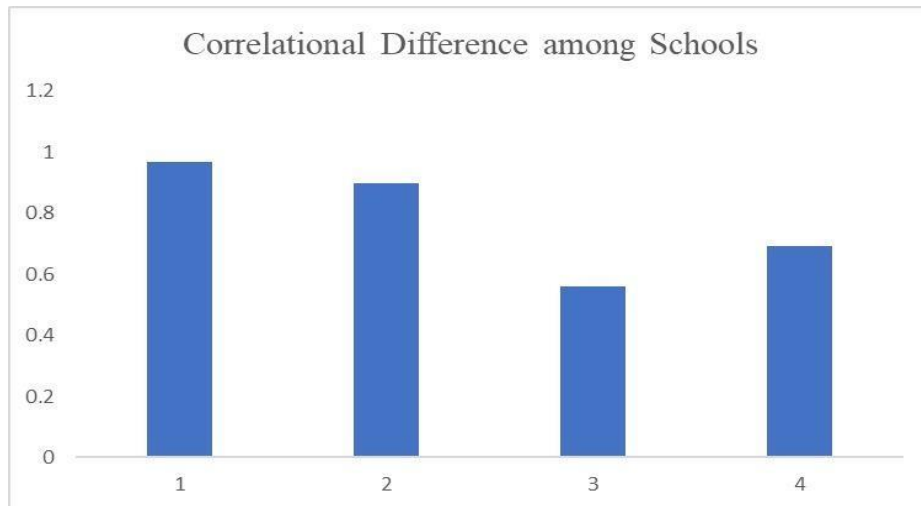
Skewness is a measurement of the distortion of symmetrical distribution or asymmetry in a data set. Skewness is demonstrated on a bell curve when data points are not distributed symmetrically to the left and right sides of the median on a bell curve. If the bell curve is shifted to the left or the right, it is said to be skewed.

We find that skewness between male (SK- -0.075) female (SK- 0.242). It's mean that male mean is bend towards left side and female mean is bent towards right side.

Kurtosis is a measure of the tailedness of a distribution. Tailedness is how often outliers occur. Excess kurtosis is the tailedness of a distribution relative to a normal distribution. Distributions with medium kurtosis (medium tails) are mesocratic.

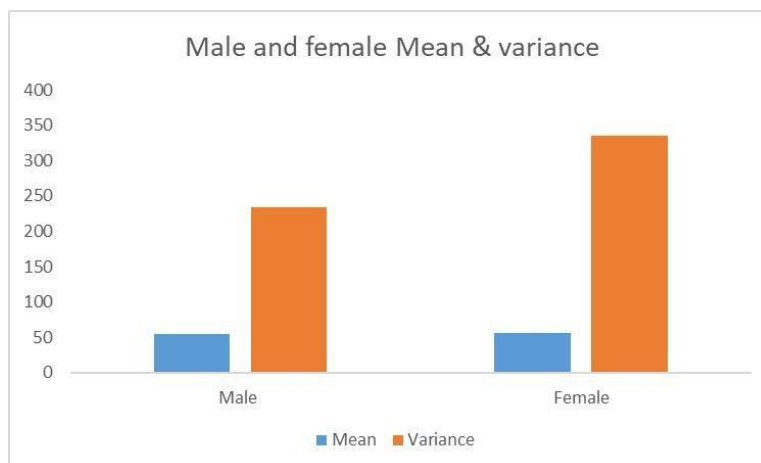
We find that kurtosis between male (K- -1.673) and female (K- -1.399) are not normal. It's mean it is bellow more than normal. It's called platykurtic.

The skewness and the kurtosis Skewness and Kurtosis are used to describe the spread and height of your normal distribution. Skewness is used to denote the horizontal pull on the data. It tells you how spread out the data is, and Kurtosis is used to find the vertical pull or the peak's height.



**Figure- 2: Graphical presentation of Correlational Difference among schools**

From the above graph, we find that correlational value of 1<sup>st</sup> school (0.9675) is higher than all other school. Correlational value of 2<sup>nd</sup> school (0.8989) is lower than 1<sup>st</sup> school and higher than other two school. Correlational value of 3<sup>rd</sup> school (0.556) is lower than all other school. Correlational value of 4<sup>th</sup> school (0.6923) is higher than 3<sup>rd</sup> school and lower than other two school.



**Figure- 3: Graphical representation of the mean & variance difference between male and female students.**

From the above graph, we find that variance of female students is higher than male students. Male and female students mean of score is equal. According to the variance of female students' academic achievement in reference to study habit and metacognitive skill is higher than those of male students' academic achievement in reference to study habit and meta cognitive skills.

## 6.0 Discussion

This chapter is concerned with discussion of the data collected as per plan and finding the result of the study. From the result of the above chapter (Chp-5) we interpret and discuss bellow.

According to the first objectives (Chp-5, Table-2) and hypothesis testing of our study, we conclude that significant relation between male and female students, the coefficient of correlation which is positive. So, we can conclude that there have relation between metacognitive skill and academic achievement in secondary school students.

According to the second objectives (Chp-5, Table-6) and hypothesis testing of our study, we conclude that significant relation between male and female students, the coefficient of correlation which is positive. So, we can conclude that there have relation between study habit pattern and academic achievement in secondary school students.

According to the third objectives (Chp-5, Table-7) and hypothesis testing of our study, we conclude that significant mean difference between male and female student, the descriptive of mean difference which is positive. So, we can conclude that there have significant difference between boy and girl students in academic achievement in reference to metacognitive skill and habit pattern’.

The researcher also concluded that new topic in lesson break at the end of the class should read it yourself again and again, should be spent on home homework every day, should be participate, should be used while reading, should be known.

The researcher also concluded that new topic in lesson break at the end of the class should not think about anyone and anything while studying, should ask yourself questions while reading, should be done while studying, should check the issue, should be made for good reading, should be made for preparation before the exam, should self-monitor yourself while reading.

According to unstructured interview of different student in different school it is concluded that lack of study habit, meta-cognitive skill in appropriate environment student socio economic condition school infrastructure make academic achievement different.

From the above graph, (Chp-5, graph- 1) we find that correlational value of 1<sup>st</sup> school is higher than all other school. Correlational value of 2<sup>nd</sup> school is lower than 1<sup>st</sup> school and higher than

other two school. Correlational value of 3<sup>rd</sup> school is lower than all other school. Correlational value of 4<sup>th</sup> school is higher than 3<sup>rd</sup> school and lower than other two school.

So, it is concluded that the study habit pattern and meta cognitive skill are higher among students than other school students, so their academic achievement is high than other school students.



## **7.0 Conclusions**

In the current study it is attempt to explore the effect of study habit in academic achievement in relation to metacognitive skill in higher secondary school students. The study focuses on the student habit pattern and metacognitive skill. The study also focuses on the difference of boy and girl students' academic achievement. Study habits seem to be important determinant of academic performance. This study has been conducted on the students of secondary school in West Bengal. The data is analyzed by descriptive and inferential statistics.

The study found the relation between metacognitive skill and academic achievement, habit pattern and academic achievement, boy and girl students' academic achievement difference in reference to habit and metacognitive skill. Also, the study found the excellent and good academic performers' habit pattern and metacognitive skills.

According to the first objectives and the respective hypothesis we find that the coefficient of correlation between metacognitive skill and academic achievement in secondary school students is positive and high. So highly attend student can achieve high scoring academic filed.

According to the second objectives and the respective hypothesis we find that the coefficient of correlation between study habit pattern and academic achievement in secondary school students is positive and high. So highly attend student can achieve high scoring academic filed.

According to the third objectives and the respective hypothesis we find that mean difference between boy and girl students in reference to metacognitive skill and habit pattern is significant. So, there is a significant difference boy and girl student academic achievement in reference to metacognitive skill and habit pattern.

## **8.0 Future Scope**

- The researcher can include further in their study Bengali medium and English medium schools.
- The researcher can conduct the study with rural, urban and semi urban school.
- The researcher can be using different methods like stratified sampling, area sampling.
- The researcher can conduct the study on colleges and universities.
- The researcher can conduct the study on various district of West Bengal.
- The researcher also can be only the work on male and female.

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