



# A Study On Reasoning Ability And Creativity Among The Higher Secondary Students In Khowai, Tripura

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**Abstract:** We all are creative in our own field, creativity is a natural thing and it's universal. The process of expressing creativity is by creating something new, on the other hand, reasoning ability is a mental process that helps us to acquire more knowledge or information by solving daily life problems. There is a need for the development of reasoning ability and creativity among the higher secondary students for a better life or good citizen of the country. The present study is "A study on reasoning ability and creativity among the higher secondary students in Khowai, Tripura". The result of this study includes the level of reasoning ability and creativity, most all students fall under the average level of reasoning ability and creativity. As per the result of the difference between the two means it was found that there is no difference between male and female students in reasoning ability and creativity. The result of the correlation it was found that there exists very high relationship between reasoning ability and creativity of higher secondary school students in Khowai Tripura.

**Key terms** – Reasoning ability, creativity, problem solving ability, secondary school students

## I. INTRODUCTION

Reasoning ability and creativity are both mental processes. Creativity is a form of reasoning ability, it is also found in many psychological theories. Through reasoning ability, a person can solve a problem or task logically and able to discover the truth. On the other hand, creativity helps us to create something new that is helpful for society, if it is harmful to society then it is useless. Every school has to develop reasoning ability and creativity among the students, for the betterment of their life and to make good citizens of the country. Some students are excellent at reasoning ability and creativity because they are decorated with inductive and deductive reasoning abilities. Creativity is most important for human characteristics; it is the best reflection of a process and requires a mix of Elements, as well as personality traits, skills and abilities. Creativity is still confusing to many psychologists many theories are unable to explain the whole structure in a acceptable manner. But there is no doubt that creativity and logical reasoning develop students' mental abilities.

## II. NEED AND SIGNIFICANCE

The seed of new creation lies in new ideas. Therefore, to develop new ideas, reasoning power is needed as well as new perspectives, and this new perspective is creativity. School is a great place to develop creativity and logical abilities. The current study was focused on higher secondary students' reasoning ability and creativity. The Human resources of any country can always play an important role in the progress of the country when the human resources of the country are productive. To develop these productive human resources, the development of the student's reasoning power is necessary as well as the development of creativity. Moreover, through creativity, a person can see a problem in a new way and come up with a new strategy to solve it, and later use that strategy to benefit everyone. Therefore, the teacher in the school needs to allow the students the opportunity to think independently to develop creativity. The teacher should not look down on any new ideas or new views of the students. It is best to give the student a suitable opportunity to develop that idea or vision.

## III. OBJECTIVE

1. To find out the level of reasoning ability among the higher secondary students.
2. To find out the level of creativity among the higher secondary students.
3. To ascertain the difference, if any, between male and female higher secondary students in reasoning ability and creativity.
4. To find out the relationship between reasoning ability and creativity among the higher secondary students in Khowai Tripura.

#### IV. HYPOTHESIS

1. There is no considerable difference between male and female higher secondary students in reasoning ability and creativity.
2. There is no significant relationship between reasoning ability and creativity among higher secondary students in Khowai Tripura.

#### V. METHODS

A descriptive survey design was used to know the reasoning ability and creativity among higher secondary school students. Data was collected from those who are studying in class XI and XII in Khowai, Tripura. A simple random sampling technique was used to collect data from different government and private schools. The descriptive and inferential statistic was used for analyzing the data.

##### 5.1. PARTICIPATE

The theoretical population of this study included all higher secondary school students of the Khowai Tripura District. By adopting a simple random sampling technique altogether 150 students included (80) male and (70) female students selected for this present study.

##### 5.2. INSTRUMENT USED

To collect data on the considered variables in the study, the following two tools were used. One is the “Verbal test of creative thinking” by B.K. Passi and another one is the “Reasoning Ability Test” by Dr. Mehraj Ahmad Bhat & Dr. Punita Govi.

##### 5.3. PROCEDURE OF ANALYSIS DATA

Collected data analyzed by using various descriptive and inferential statistics Mean, Median, SD, t-Test, Correlation, etc.

#### VI. RESULT AND DISCUSSION

##### Objective -1:

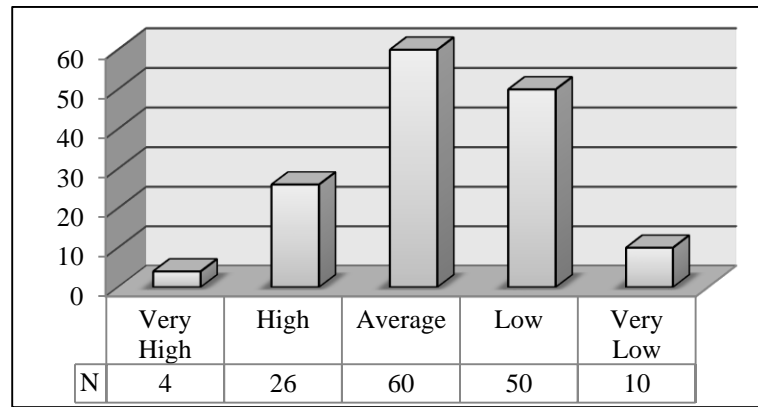
To analyze objective number- 1, “To find out the level of reasoning ability among the higher secondary students”, the response of the higher secondary students were converted into percentages based on category and the data has been analyzed by using descriptive statistics, and the data are classified into different levels and categories as per the norms provided in the tools.

**Table No.1: Showing the level of reasoning ability of higher secondary students.**

Score Range	N	Percentage	Level of Reasoning Ability
29 & Above	4	2.67%	Very High
23 to 28	26	17.33%	High
17 to 22	60	40%	Average
11 to 16	50	33.33%	Low
0 to 10	10	6.67%	Very low

On the table number 1, it was shown that, the result revealed that the level of reasoning ability of higher secondary students most of all (60) students falls under the average level. Out of 150 higher secondary schools students of Khowai Tripura, 4 students were at very high, 26 students were at high, 50 students were at low and 10 students were at a very low level of reasoning ability. The table of this result is highlight in table number 1 and the figure of this table is highlighted in figure number 1.

**Figure – 1**



**Objective - 2:**

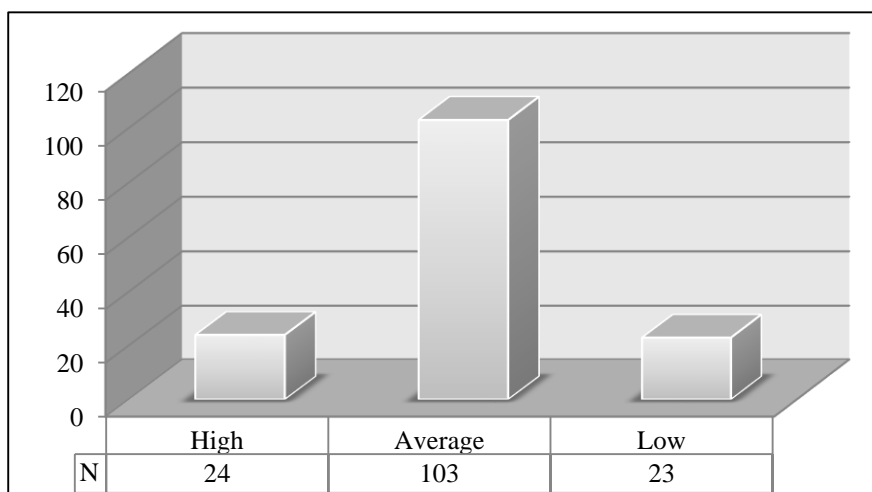
To analyze objective number- 2, “To find out the level of creativity among the higher secondary students” the data has been analyzed by using descriptive statistics, and the data are classified into different levels and categories.

**Table No. 2: Showing the level of creativity among the higher secondary students**

Score Range	N	Percentage	Level of Creativity
43 & Above	24	16%	High
18 to 42	103	68.67%	Average
17 & Below	23	15.33%	Low

The result revealed that the level of creativity of higher secondary students most of all average, out of 150 students 24 students was at a high level, 103 students were at an average level and 23 students were at a low level of creativity. The result is highlighted in table number 2 and the figure is highlighted in figure number 2.

**Figure – 2**



**Objective -3:**

To analyze objective number- 3, “To ascertain the difference, if any, between male and female higher secondary students towards the reasoning ability and creativity” and to ascertain the hypothesis (There is no considerable difference between male and female higher secondary students towards the reasoning ability and creativity) t-test was used.

**Table No. 3: Showing the difference between male and female students in reasoning ability and creativity.**

Variable	Category	Mean	N	SD	df	t	Level of Significance
Reasoning Ability	Male	17.22	80	4.90	148	1.57	Not significant at 0.05 level
	Female	18.51	70	5.15			
Creativity	Male	30.36	80	10.51	148	0.23	
	Female	30.81	70	13.77			

In table number -3, it was revealed that the difference between male and female students' reasoning ability (male students' mean is 17.22, SD - 4.90, N - 80 and female students' mean is 18.51, SD - 5.15, N - 70). The calculated t value is 1.57 and the table value is 1.98 with 148 df at .05 level of significance. The calculated t value is smaller than the table value. And To compare the difference between male and female students' creativity, t-test was used, (male students' mean is 30.36, SD 10.51, N- 80 and female students' mean is 30.81, SD- 13.77, N- 70). The calculated t value is 0.23 and the table value is 1.98 with 148 df at .05 level of significance. It was observed that the calculated t value is smaller than the table value. So, the null hypothesis (There is no considerable difference between male and female higher secondary students in reasoning ability and creativity) is accepted. So as per result, it was found that there was no significant difference between male and female students in reasoning ability and creativity.

**Objective 4:**

To analyze objective number -4, “To find out the relationship between reasoning ability and creativity among the higher secondary students in Khowai, Tripura”, and to test the null hypothesis (There is no significant relationship between reasoning ability and creativity among the secondary students in Khowai Tripura) by using Pearson's coefficient of correlation.

**Table No. 4: Showing the relationship between two variables**

Variable	N	r – Value	df	Level of Significance	Remark
Reasoning Ability	150	0.98	148	0.01	Significant & there exist very high relation
Creativity	150				

As per the result of table number 4, it was observed that there exists very high relationship between reasoning ability and creativity of higher secondary students. The r ratio of the two variables is 0.98 which is statistically significant at .01 level with 148 df. Therefore the null hypothesis “There is no significant relationship between reasoning ability and creativity among the secondary students in Khowai Tripura.” is rejected.

**VII. CONCLUSION**

The reasoning ability of higher secondary students of Khowai Tripura most of all students is at the average level, and the creativity level of higher secondary students most of all students falls under the average level. It was found that it is no difference between male and female students' reasoning ability and creativity. As per the result of the correlation, it was observed that there is no relationship between creativity and the reasoning ability of higher secondary students in Khowai Tripura.

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