

# A Creativity Analysis of Secondary School Students in the Rural Area in North 24 Parganas Districts of West Bengal Between Learning Able and Learning Disable Students

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**Abstract:** Creativity is a process in which something unique and somehow useful is created. The item produced can be intangible (such as a musical arrangement, a joke etc) or a physical entity (such as an invention, a painting etc). This improves our awareness and experience from the familiar to the unfamiliar. They are capable of arranging thoughts and feelings in a manner that is fluent, versatile and uniquely thoughtful. Quality teaching and detailed artistic expressions encourage and foster creative thought that contributes significantly to society. The educational method should also strive to improve the innovative abilities of children.

The study was performed on fifty learning able (twenty 25 male and 25 female students) and fifty learning disable (twenty 26 male and 24 female students) students of class X in rural communities. The study explored the ingenuity of rural high school pupils in the North 24 Parganas Districts of West Bengal. The two rural co-educational secondary schools were selected using stratified random sampling methods and students were selected using basic random sampling techniques. To collect data using the creativity test developed by B.K.Passi, the descriptive survey approach is used.

Key-words: **Creativity, learning able, learning disable, Secondary School Students.**

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## I. INTRODUCTION:

Creativity involves dreaming about coming up with fresh thoughts in a different way. It broadens our awareness and experience from knowledge to knowledge. Creativity is the desire to overcome conventional ways of thought or behaving and to create new, original concepts, strategies or artifacts.

It's in the 1920s when we first begin to see the rise of the concept of modern creativity. With the birth of psychology at the end of the 19th century, the western world's paradigms moved to a more comprehensive perspective on the personality and our individuality. Creativity became famous first after Wallas's book Art of Thinking, an imaginative skill or a personality trait. Wallas provide a blueprint in this work on how humans address challenges and think creatively. And thus, the modern concept of creativity was born. Since then, the term has only continued to be built into what we understand today through psychologists and scholars in other areas.

Creativity tests measure not only the number of alternatives that people can generate, but also the uniqueness of those alternatives. The ability to generate alternatives or to see things in a unique way does not arise from change; it is linked to other more fundamental qualities of thought, such as flexibility, tolerance of ambiguity or unpredictability, and enjoyment of things previously unknown. Quality training and extensive creative expressions inspire and encourage creative thinking to make a substantial contribution to society. Therefore, the educational process should aim to develop children's creative skills.

“Creativity is the process of bringing something new into being. Creativity requires passion and commitment. It brings to our awareness what was previously hidden and points to new life. The experience is one of heightened consciousness: ecstasy.” – Rollo May, *The Courage to Create*

A 2012 Adobe Creativity Study shows that 8 in 10 people feel that unlocking creativity is critical to economic growth, and almost two-thirds of respondents feel that creativity is valuable to society, yet a striking minority—only 1 in 4—believe that they live up to their own creative potential. Creativity is seen in educational settings as a special approach to learning that involves both "creative" teaching and "creative" learning strategies. These strategies facilitate learning and are at the same time, the result of appropriate teaching and learning.

In this paper the investigator attempts to examine the creativity of rural learning disabled and rural learning able students (both male and female) of secondary school students in the North 24Parganas Districts of West Bengal, India.

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## **II. OBJECTIVES:**

- i) To study the significance of the mean differences in the creativity of learning able (50) and learning disabled (50) students of secondary school students (total sample=50) of North 24parganas district of West Bengal.
- ii) To study the significance of the mean differences in the creativity of learning able male (25) and learning able female (25) students of secondary school students of North 24parganas district of West Bengal.
- iii) To study the significance of the mean differences in the creativity of learning disabled male (26) and learning disabled female (24) students of secondary school students of North 24parganas district of West Bengal.
- iv) To study the significance of the mean differences in the creativity of learning able male (25) and learning disabled male (26) students of secondary school students of North 24parganas district of West Bengal.
- v) To study the significance of the mean differences in the creativity of learning able male (25) and learning disabled female (24) students of secondary school students of North 24parganas district of West Bengal.
- vi) To study the significance of the mean differences in the creativity of learning able female (25) and learning disabled male (26) students of secondary school students of North 24parganas district of West Bengal.
- vii) To study the significance of the mean differences in the creativity of learning able female (25) and learning disabled female (24) students of secondary school students of North 24parganas district of West Bengal.

### III. HYPOTHESIS:

**H<sub>01</sub>:** There exists no significant difference in the mean scores of creativity between learning able (50) and learning disable (50) students of secondary school students (total sample=50) of North 24parganas district of West Bengal.

**H<sub>02</sub>:** There exists no significant difference in the mean scores of creativity between learning able male (25) and learning able female (25) students of secondary school students of North 24parganas district of West Bengal.

**H<sub>03</sub>:** There exists no significant difference in the mean scores of creativity between learning disable male (26) and learning disable female (24) students of secondary school students of North 24parganas district of West Bengal.

**H<sub>04</sub>:** There exists no significant difference in the mean scores of creativity between learning able male (25) and learning disable male (26) students of secondary school students of North 24parganas district of West Bengal.

**H<sub>05</sub>:** There exists no significant difference in the mean scores of creativity between learning able male (25) and learning disable female (24) students of secondary school students of North 24parganas district of West Bengal.

**H<sub>06</sub>:** There exists no significant difference in the mean scores of creativity between learning able female (25) and learning disable male (26) students of secondary school students of North 24parganas district of West Bengal.

**H<sub>07</sub>:** There exists no significant difference in the mean scores of creativity between learning able female (25) and learning disable female (24) students of secondary school students of North 24parganas district of West Bengal.

### IV. METHODOLOGY:

**4.1 Population:** Learning able and learning disable Secondary school students of West Bengal Board of Secondary Education who are studying in class X were considered as population for this study.

**4.2 Sample:** Total number of students in the study was one hundred. Fifty one (51) male and forty nine (49) girls students selected randomly from two rural secondary schools of North 24parganas district of West Bengal were chosen as sample.

**4.3 Method:** Descriptive approach is used of this study.

**4.4 Variables:** 1) Dependent – i) Achievement test, ii) Mixed Type Group Test of Intelligence (MGTI-M), iii) Creativity test, 2) Categorical - girls and boys.

**Tools:** i) **Achievement test:** This test prepared by the Investigators. This includes 100 objective types question which they have learned before.

ii) **Mixed Type Group Test of Intelligence (MGTI-M):** This test consists of two tests, i.e., verbal and non-verbal. This test developed by Dr. P. N. Mehrotra. These tests contain five sub-tests each. Under each test there are fifty items organized in an omnibus selective form.

iii) **Creativity test:** This test also consists of two tests, i.e., verbal and non-verbal, developed by Dr. B. K. Passi is used. This includes six sub-tests, i.e. (i) the seeing problems test, (ii) the unusual tests, (iii) the consequences test, (iv) the test of inquisitiveness, (v) the square puzzle test, and (vi) the blocks test of creativity. The first three tests are verbal and last three tests are non-verbal in nature. (Non-verbal performance materials are 19 Block of 1", 12 Block of ½", 1 Wooden Board, 5 Identical Right Angled triangles for Plastic and 5 Identical Quadrilaterals for Plastic). It measures three components of creativity—fluency, flexibility, and originality.

**4.5 Sample selected for the study:** Sample consists of 420 students selected from 2 schools of north 24 parganas district. Sampling technique gives due representation to factors like gender of the student, locality of the school and type of management of the school. From the selected 420 students, the investigator identified 50 (26 male and 24 female students) students as learning disabled using a set of pre-determined criteria.

**4.5.1 Criteria and Tools/Techniques used for identifying Learning Disabled students:**

- i) Achievement Test developed by the investigator was administered. Students scoring below 25% were selected.
- ii) Children deviation I.Q. limit below 90(Dull Average) were selected.

**4.5.2 Criteria and Tools/Techniques used for identifying Normal Students:**

In the Achievement Test the students who came in 1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup>, 7<sup>th</sup> .....were selected. This was continued till the investigator got 50 normal students.

**4.6 Techniques:**

Statistical Analysis (Mean, SD, Std. Error, ‘t’ value and graphical re-presentations are used.

**4.7 Result and Interpretation of data:**

In terms of mean, standard deviation, Std. Error and t-test process, the collected data was evaluated via the above-mentioned inventories.

**Table – 1**

Creativity Score of All Students:

CN = Stands for Code Number of students, CS= Stands for Creativity Score

Creativity (Learning able)				Creativity (Learning disable)			
Male (Rural)		Female(Rural)		Male (Rural)		Female (Rural)	
CN	CS	CN	CS	CN	CS	CN	CS
01	62	26	60	01	47	27	48
02	54	27	64	02	43	28	51
03	55	28	57	03	38	29	46
04	51	29	58	04	41	30	45
05	60	30	55	05	37	31	38

06	59		31	57		06	42		32	42
07	58		32	61		07	36		33	44
08	55		33	63		08	39		34	38
09	59		34	59		09	43		35	36
10	62		35	56		10	40		36	39
11	58		36	62		11	35		37	37
12	54		37	64		12	37		38	35
13	59		38	61		13	38		39	34
14	64		39	52		14	32		40	32
15	60		40	55		15	33		41	38
16	57		41	53		16	36		42	37
17	55		42	54		17	31		43	36
18	54		43	57		18	33		44	31
19	61		44	52		19	32		45	29
20	53		45	54		20	22		46	28
21	60		46	55		21	29		47	26
22	63		47	51		22	27		48	27
23	67		48	56		23	21		49	24
24	70		49	53		24	23		50	25
25	68		50	52		25	28		XX	XX
XX	XX		XX	XX		26	24		XX	XX

Table - 2

Showing the result of mean score, standard deviation, t-value and level of significance of the creativity between learning able (50) and learning disabled (50) students of secondary school students (total sample=50) of North 24parganas district of West Bengal.

Groups	N	Mean	SD	Std. Error	't' value	Level of Significance
Learning able	50	57.98	4.53	1.20	19.01	Significant

Learning disable	50	35.06	7.22			
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df = 98

Table value = 1.98 at .05 level

**Interpretation –**

Table - 2 shows that the mean scores on creativity of learning able and learning disable students were 57.98 and 35.06 with standard deviation of 4.53 and 7.22 respectively. When the t-test was applied to compare the mean scores of both the groups, it was found that the calculated t-value 19.01 was greater than the table value at 0.05 levels of significance. Thus, the difference between the two means is statistically significant.

Therefore, the hypothesis that there exists no significant difference in the mean scores of creativity between learning able (50) and learning disable (50) students of secondary school students (total sample=50) of North 24parganas district of West Bengal is not accepted.

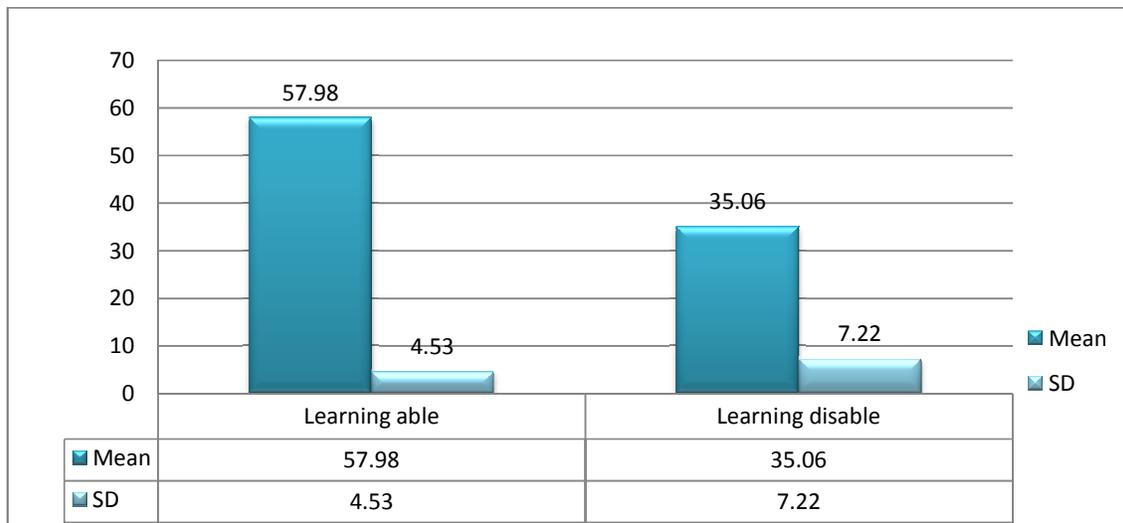


Fig. 1

Mean differences in the creativity of learning able and learning disable students of secondary school students (total sample) of North 24parganas district of West Bengal.

**Table – 3**

Showing the result of mean score, standard deviation, t-value and level of significance of the creativity between learning able male (25) and learning able female (25) students of secondary school students of North 24parganas district of West Bengal.

Groups	N	Mean	SD	Std. Error	‘t’ value	Level of Significance
Learning able male	25	59.12	4.83	1.25	1.82	Not Significant
Learning able female	25	56.84	3.97			

df = 48

Table value = 2.01 at .05 level

**Interpretation –**

Table - 3 shows that the mean scores on creativity of learning able male (25) and learning able female (25) students were 59.12 and 56.84 with standard deviation of 4.83 and 3.97 respectively. The ‘t’ value is 1.82 which is less than the table value at 0.05 levels of significance. Thus, the difference between the two means is statistically insignificant.

Therefore, the hypothesis that there exists no significant difference in the mean scores of creativity between learning able male (25) and learning able female (25) students of secondary school students of North 24parganas district of West Bengal is accepted.

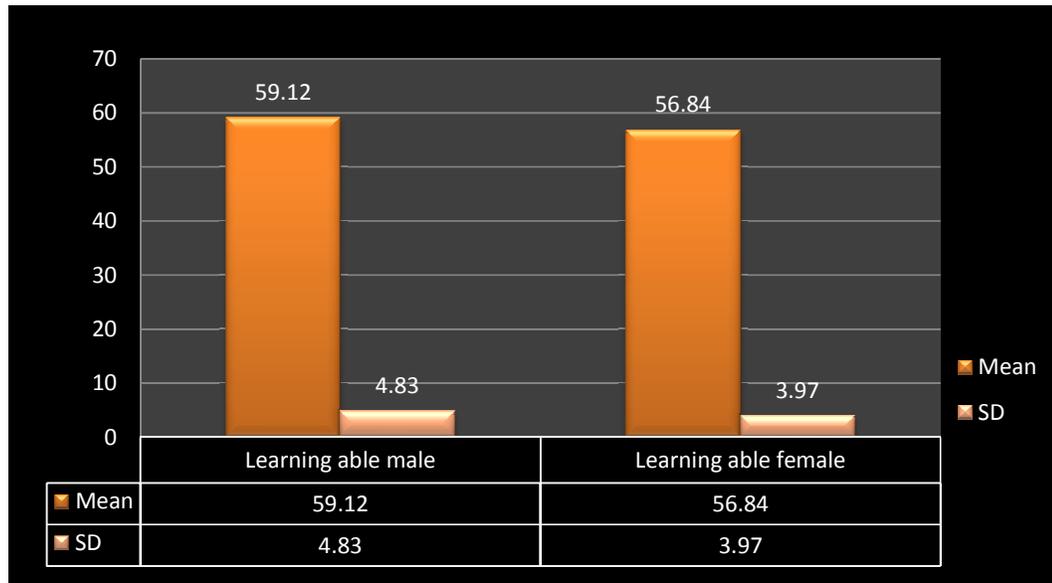


Fig. 2

Mean differences in the creativity of learning able male and learning able female students of secondary school students (total sample) of North 24parganas district of West Bengal.

**Table – 4**

Showing the result of Mean score, Standard deviation, t-value and level of significance of the creativity between learning disabled male (26) and learning disabled female (24) students of secondary school students of North 24parganas district of West Bengal.

Groups	N	Mean	SD	Std. Error	‘t’ value	Level of Significance
Learning disable male	26	34.11	7.00	2.04	0.96	Not Significant
Learning disable female	24	36.08	7.45			

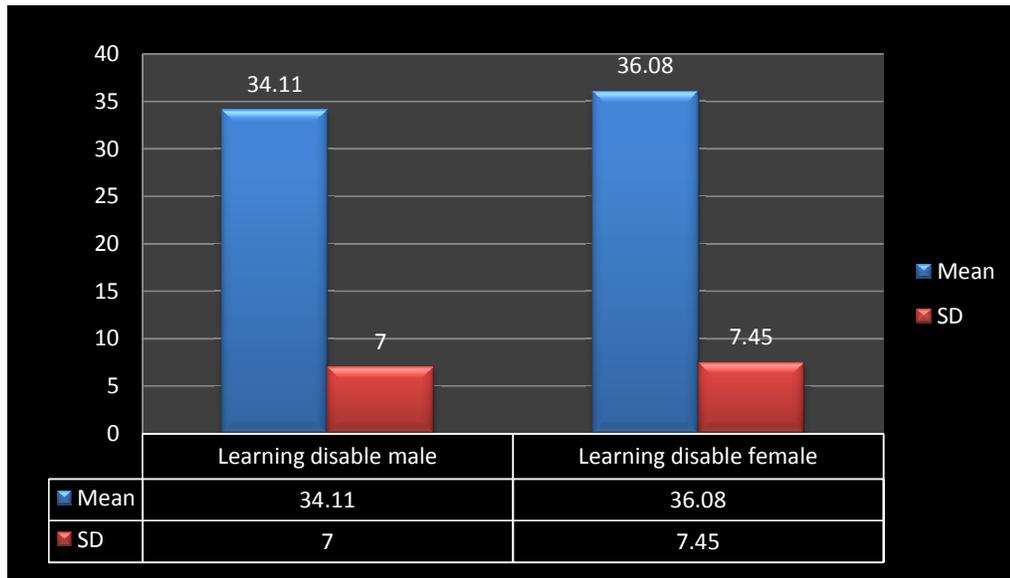
df = 48

Table value = 2.01 at .05 level

**Interpretation –**

Table - 4 shows that the mean scores on creativity of learning disabled male (26) and learning disabled female (24) students were 34.11 and 36.08 with standard deviation of 7.00 and 7.45 respectively. The ‘t’ value is 0.96 which is less than the table value at 0.05 levels of significance. Thus, the difference between the two means is statistically insignificant.

Therefore, the hypothesis that there exists no significant difference in the mean scores of creativity between learning disabled male (26) and learning disabled female (24) students of secondary school students of North 24parganas district of West Bengal is accepted.



**Fig. 3**

Mean differences in the creativity of learning disabled male and learning disabled female students of secondary school students (total sample) of North 24parganas district of West Bengal.

**Table – 5**

Showing the result of Mean score, Standard deviation, t-value and level of significance of the creativity between learning able male (25) and learning disable male (26) students of secondary school students of North 24parganas district of West Bengal.

<b>Groups</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>Std. Error</b>	<b>'t' value</b>	<b>Level of Significance</b>
<b>Learning able male</b>	<b>25</b>	<b>59.12</b>	<b>4.83</b>	<b>1.67</b>	<b>14.97</b>	<b>Significant</b>
<b>Learning disable male</b>	<b>26</b>	<b>34.11</b>	<b>7.00</b>			

df = 49

Table value = 2.01 at .05 level

**Interpretation –**

Table - 5 shows that the mean scores on creativity of learning able male (25) and learning disable male (26) students were 59.12 and 34.11 with standard deviation of 4.83 and 7.00 respectively. The 't' value is 14.97 which is greater than the table value at 0.05 levels of significance. Thus, the difference between the two means is statistically significant.

Therefore, the hypothesis that there exists no significant difference in the mean scores of creativity between learning able male (25) and learning disable male (26) students of secondary school students of North 24parganas district of West Bengal is not accepted.

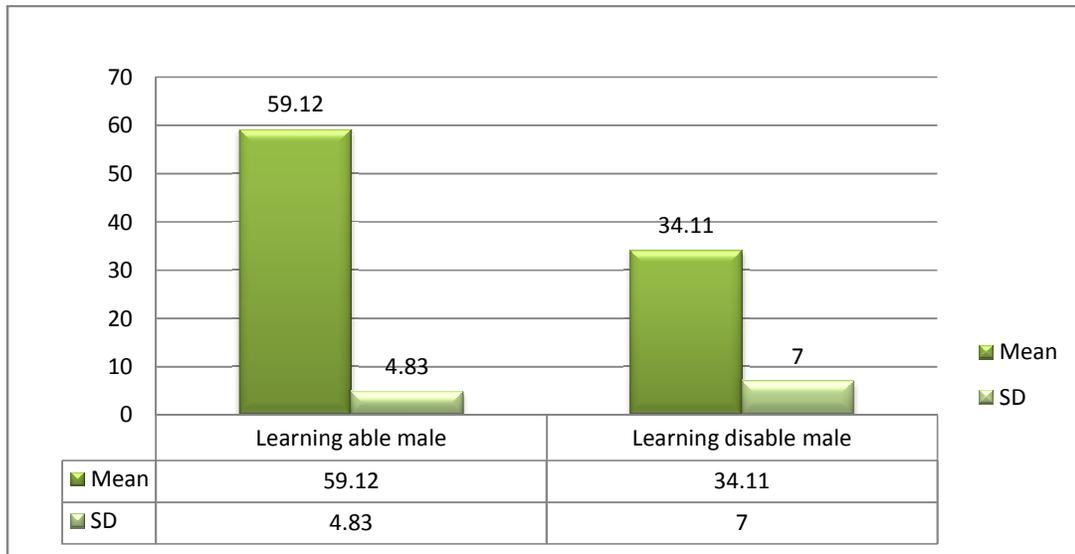


Fig. 4

Mean differences in the creativity of learning able male and learning disabled male students of secondary school students (total sample) of North 24parganas district of West Bengal.

Table – 6

Showing the result of Mean score, Standard deviation, t-value and level of significance of the creativity between learning able male (25) and learning disabled female (24) students of secondary school students of North 24parganas district of West Bengal.

Groups	N	Mean	SD	Std. Error	't' value	Level of Significance
Learning able male	25	59.12	4.83	1.52	15.16	Significant
Learning disabled female	24	36.08	7.45			

df = 47

Table value = 2.01 at .05 level

**Interpretation –**

Table - 6 shows that the mean scores on creativity of learning able male (25) and learning disable female (24) students were 59.12 and 36.08 with standard deviation of 4.83 and 7.45 respectively. The ‘t’ value is 15.16 which is greater than the table value at 0.05 levels of significance. Thus, the difference between the two means is statistically significant.

Therefore, the hypothesis that there exists no significant difference in the mean scores of creativity between learning able male (25) and learning disable female (24) students of secondary school students of North 24parganas district of West Bengal is not accepted.

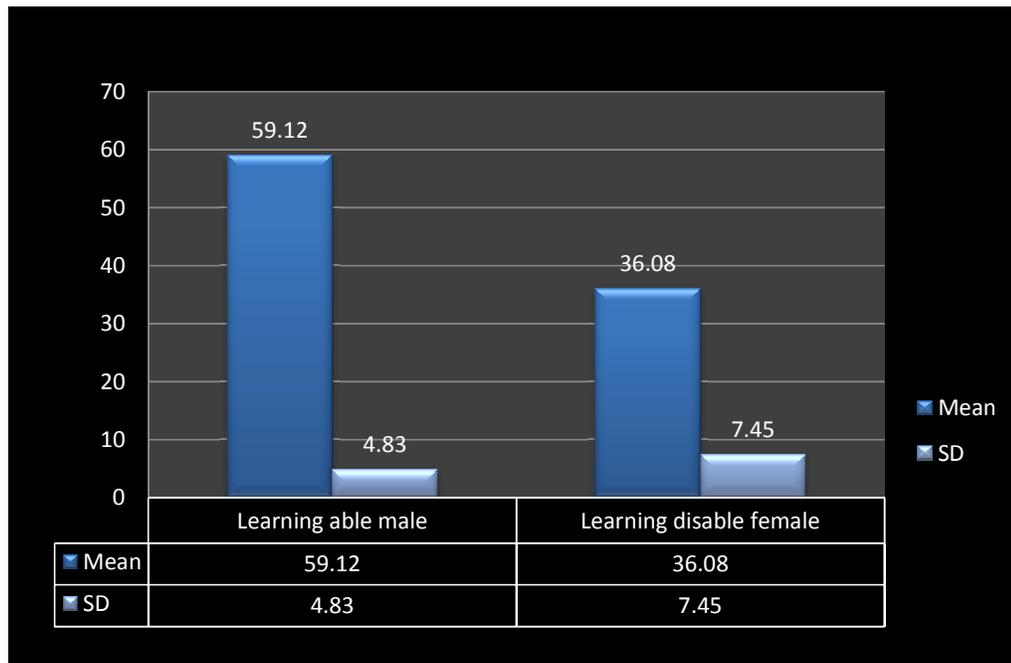


Fig. 5

Mean differences in the creativity of learning able male and learning disable female students of secondary school students (total sample) of North 24parganas district of West Bengal.

Table – 7

Showing the result of Mean score, Standard deviation, t-value and level of significance of the creativity between learning able female (25) and learning disable male (26) students of secondary school students of North 24parganas district of West Bengal.

Groups	N	Mean	SD	Std. Error	‘t’ value	Level of Significance
Learning able female	25	56.84	3.97	1.58	14.39	Significant

Learning disable male	26	34.11	7.00			
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df = 49

Table value = 2.01 at .05 level

**Interpretation –**

Table - 7 shows that the mean scores on creativity of learning able female and learning disable male students were 56.84 and 34.11 with standard deviation of 3.97 and 7.00 respectively. The ‘t’ value is 14.39 which is higher than the table value at 0.05 levels of significance. Thus, the difference between the two means is statistically significant.

Therefore, the hypothesis that there exists no significant difference in the mean scores of creativity between learning able female (25) and learning disable male (26) students of secondary school students of North 24parganas district of West Bengal is not accepted.

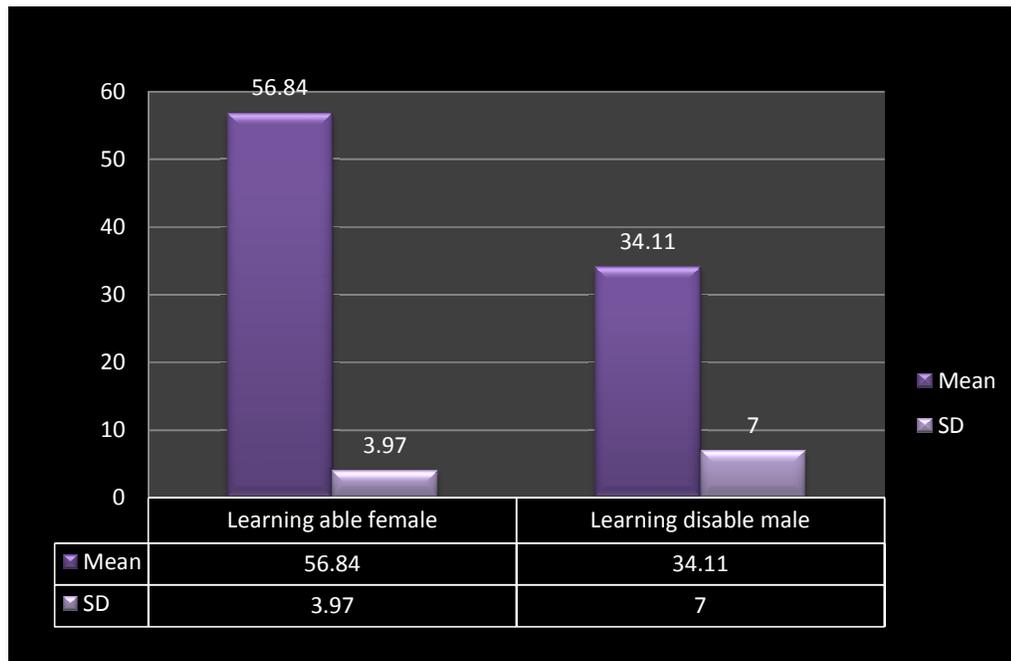


Fig. 6

Mean differences in the creativity of learning able female and learning disable male students of secondary school students (total sample) of North 24parganas district of West Bengal.

Table – 8

Showing the result of Mean score, Standard deviation, t-value and level of significance of the creativity between learning able female (25) and learning disable female (24) students of secondary school students of North 24parganas district of West Bengal.

Groups	N	Mean	SD	Std. Error	't' value	Level of Significance
Learning able female	25	56.84	3.97	1.71	12.14	Significant
Learning disable female	24	36.08	7.45			

df = 47

Table value = 2.01 at .05 level

**Interpretation –**

Table - 8 shows that the mean scores on creativity of learning able female and learning disable female students were 56.84 and 36.08 with standard deviation of 3.97 and 7.45 respectively. The 't' value is 12.14 which is higher than the table value at 0.05 levels of significance. Thus, the difference between the two means is statistically significant.

Therefore, the hypothesis that there exists no significant difference in the mean scores of creativity between learning able female (25) and learning disable female (24) students of secondary school students of North 24parganas district of West Bengal is not accepted.

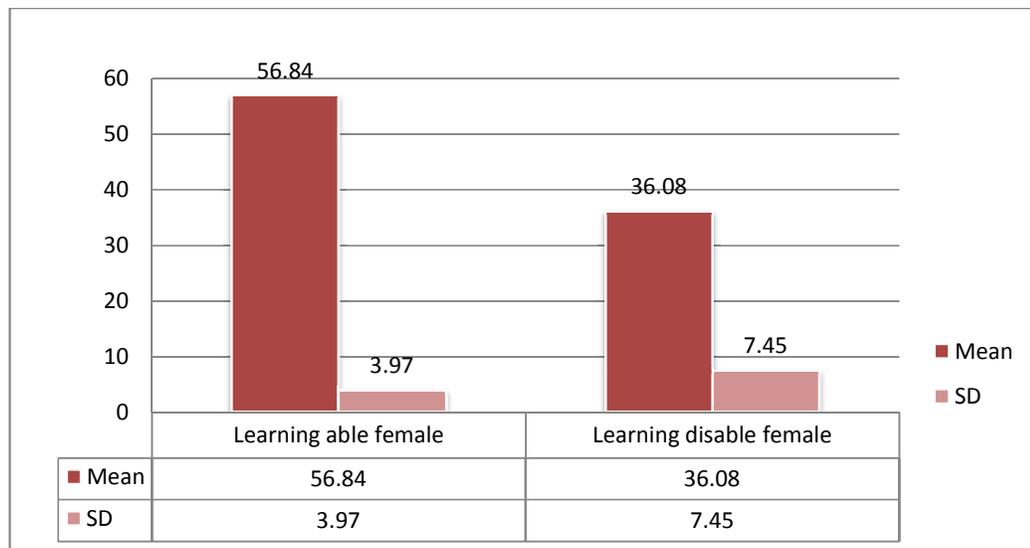


Fig.7

Mean differences in the creativity of learning able female and learning disable female students of secondary school students (total sample) of North

24parganas district of West Bengal.

## V. FINDINGS OF THE STUDY:

From the Interpretation of the data which are represented by different Tables and Figures, it is concluded that –

- i) There exists significant difference in the mean scores of creativity between learning able and learning disable students of secondary school students (total sample) of North 24parganas district of West Bengal.
- ii) There exists no significant difference in the mean scores of creativity between learning able male (25) and learning able female (25) students of secondary school students of North 24parganas district of West Bengal.
- iii) There exists no significant difference in the mean scores of creativity between learning disable male (26) and learning disable female (24) students of secondary school students of North 24parganas district of West Bengal.
- iv) There exists significant difference in the mean scores of creativity between learning able male (25) and learning disable male (26) students of secondary school students of North 24parganas district of West Bengal.
- v) There exists significant difference in the mean scores of creativity between learning able male (25) and learning disable female (24) students of secondary school students of North 24parganas district of West Bengal.
- vi) There exists significant difference in the mean scores of creativity between learning able female (25) and learning disable male (26) students of secondary school students of North 24parganas district of West Bengal.
- vii) There exists significant difference in the mean scores of creativity between learning able female (25) and learning disable female (24) students of secondary school students of North 24parganas district of West Bengal.

## VI. CONCLUSION :

Creativity is a process in which something unique and somehow useful is created. This improves our awareness and experience from the familiar to the unfamiliar. They are capable of arranging thoughts and feelings in a manner that is fluent, versatile and uniquely thoughtful. Quality teaching and detailed artistic expressions encourage and foster creative thought that contributes significantly to society. The study was performed on fifty learning able (twenty 25 male and 25 female students) and fifty learning disable (twenty 26 male and 24 female students) students of class X in rural communities. The study explored the ingenuity of rural high school pupils in the North 24 Parganas Districts of West Bengal. To collect data using the creativity test developed by B.K.Passi, the descriptive survey approach is used.

From the outcomes it is found that there exists significant difference in creativity between learning able and learning disable students of secondary school students in rural area of North 24parganas district of West Bengal.

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