



RELATIONSHIP BETWEEN NON-VERBAL CREATIVITY AND FREEDOM OF STUDENTS

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ABSTRACT

Creativity is a highly valued quality of human being. Family environment has much influence on the development of it in the children. The rules, regulation, discipline and management pattern vary from family to family. Freedom of thought and actions is different in various families. Boys and girls enjoy different degree of freedom in their family to unfold their creative potential. A few studies have concerned with gender difference in creativity. But in this local area, culture, is there any difference in creativity with the gender difference? Thus relationship between non-verbal creativity (with its components- *Fluency, Flexibility, Originality*) and Freedom along with gender difference has been studied in this article.

INTRODUCTION

Creativity is recognized as a multivariate phenomenon. The different perspectives that have been adopted to study creativity and different relationships exist among them. There are indefinite numbers of ways to be creative. Therefore, the investigator who attempts to conduct research in this Masonic field faces difficulty in defining creativity. Creativity is a departure from the stereotyped, rigid and closed thinking. It encourages and demands complete freedom to accept and express the multiplicity of responses, choices and lines of actions. It is a kind of adventurous thinking, calling a person to come out in the open to express himself according to his will and to function unrestricted by routine or previous practice. Gupta(2006) is of the opinion that creative abilities are inherited to the extent that a person inherits his sense organs, peripheral nervous system and brain. How these abilities develop and function, however, is strongly influenced by the way the environment responds to a person's curiosity and

creativity needs. It indicates that the environmental influences are more important in the development of creativity. Though the creative thinking abilities are hereditary, the expression of creative potential will depend upon the environmental influences. It means that the degree of creative expression can be increased by the environmental manipulation. Ellermeyer (1993) reminds us that, "parents can directly influence the development of creativity in their children by promoting fantasy in play and curiosity in the early childhood years. Parents of creative pre-schoolers are generally conceptually abstract thinkers, patient, flexible, open-minded, insightful and afford their children a high degree of independence". Olszewski-Kubilius (2001) mention that an important family-environment factor is the degree to which the family creates an atmosphere where children are free to develop a unique identity and have their own individual thoughts and express them freely. Individuals who come from such families are more likely to be very creative, as well as highly competent, in

their work. Such families foster creativity and intellectual risk taking. In Indian Family culture, unfortunately, yet, boys and girls are not treated in the same way in various aspects. They enjoy different degree of freedom in their same family. Hence, children's creativity development may be varied with their gender difference. Thus, Freedom of thought and actions enjoyed by the children in their families may be considered as an important factor of creativity development.

Objectives of the Study

Objectives of the present study were framed as follows:

- To assess the non-verbal creativity of all the students in terms of fluency, flexibility and originality.
- To study the difference between Freedom and Restriction group boys in fluency, flexibility and originality of non-verbal creativity.
- To study the difference between Freedom and Restriction group girls in fluency, flexibility and originality of non-verbal creativity.
- To study the relationship between Freedom of students and different components of non-verbal creativity for boys.
- To study the relationship between Freedom of students and different components of non-verbal creativity for girls.

Hypotheses of the Study

Keeping in mind the objectives of the present study and findings of the review of related studies, the researcher formulated the following hypotheses:

- **H₁:** There would be significant difference between Freedom and Restriction group boys in Fluency, Flexibility and Originality scores of non-verbal creativity.
- **H₂:** There would be significant difference between Freedom and Restriction group girls in Fluency, Flexibility and Originality scores of non-verbal creativity.
- **H₃:** There would be significant relationship between Freedom of students and components of non-verbal creativity (Fluency, Flexibility, Originality) for boys.
- **H₄:** There would be significant relationship between Freedom of students and components of non-verbal creativity (Fluency, Flexibility, Originality) for girls.

Sample

The sample consisted of 372 school going students of class VIII and class IX from eight different types (Boys', Girls', Co-ed.) of schools of district Nadia and North 24 Parganas of West Bengal. All the selected schools were of Bengali Medium under West Bengal Board of Secondary Education. There were 179 boys and 193 girls in the sample. Different types of schools were selected randomly from the both districts- according to a particular ratio.

Variables

The variables of the study were:

Dependent variables

Dependent variables in the study were students' performance scores, on only three components of creativity, obtained from non-verbal creativity test:

- Fluency
- Flexibility
- Originality

Independent variables

There were two independent variables in the study:

- Freedom of thought & action (Freedom and Restriction)
- Gender (Boys and Girls).

Tools and Techniques

Sarker's Creativity Test

Sarker's Creativity test was developed by Sarker, A. K. (1994), and could be administered to individuals at all educational levels above six years of age. The test consisted of several test activities of non-verbal form. Administration of test and scoring procedure would be as the test manuals. The test was standardized one and its reliability and validity scores were in the test manuals. It included the followings:

- Game – 1 : Circle Test
- Game – 2 : Incomplete Figures
- Game – 3(A) : Asking Questions (Showing a Picture)
- Game – 3(B) : Asking Questions (Showing a real object- wrist watch)

Sarker's Freedom Test

Sarker (1986) developed a Freedom Test for school going children in Bengali, and it was standardized on the students of Bengali medium schools of West Bengal. Freedom of thought and actions in the family and in the school might foster the creative potential in the children. The test items concerned with the freedom of thought and work in scientific experiments, hobby, personal views or in daily life style.

RESULTS

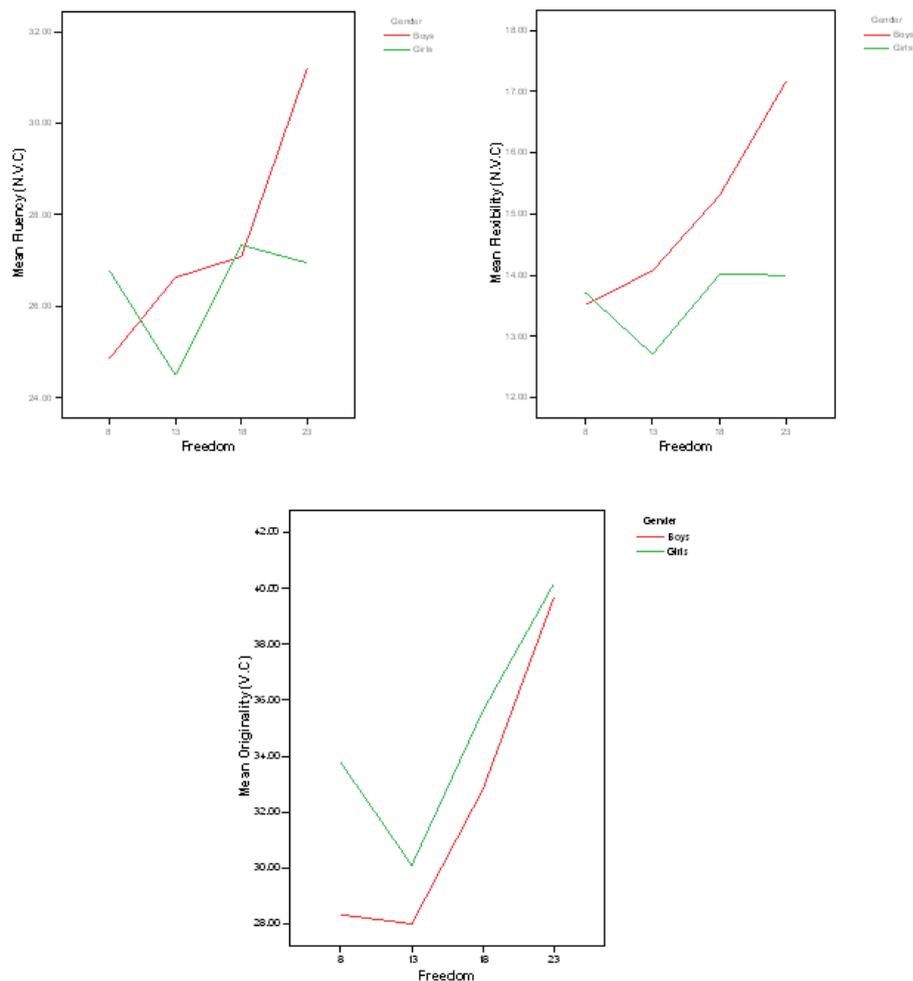
The present study involved ANOVA, t-test and Correlation techniques with independent variables Freedom of Thought & Actions (Freedom & Restriction) and Gender (Boys & Girls) and three dependent variables (viz., Fluency, Flexibility, Originality) of non-verbal Creativity to analyze the obtained data, to interpret the results, to test the hypotheses and thereby to get the objectives of the present study. Each group was divided into three sub-groups viz., Freedom, Middle and Restriction on the basis of 27% statistical rule. The relationships between the components and Freedom were visually represented by the Figure-1, Figure -2 and Figure-3 for fluency, flexibility, originality components of creativity respectively for the two groups – Boys and Girls. Here, each component of creativity increased gradually with increase of Freedom for both girls and boys. Though the girls' scores are haphazard and the boys' scores are greater in fluency & flexibility components with respect to freedom but girls'

Table 1. Descriptive Statistics of Creativity

Gender	Dimensions of Creativity	N	Range	Minimum	Maximum	Mean	SD
Boys	Fluency	179	41	8	49	27.13	7.126
	Flexibility	179	30	1	31	14.87	5.248
	Originality	179	54	3	57	26.66	10.289
Girls	Fluency	193	35	10	45	26.06	6.754
	Flexibility	193	25	4	29	13.45	4.731
	Originality	193	57	6	63	26.71	10.251

Table 2. Descriptive Statistics of Independent Variable

Gender	Independent Variables	N	Range	Minimum	Maximum	Mean	SD
Boys	Freedom	179	21	5	26	15.59	3.990
Girls	Freedom	193	18	7	25	15.90	3.853

**Figure: Graphical Representations of Mean Fluency, Mean Flexibility, Mean Originality Scores in non-verbal Creativity Test with Freedom for Boys and Girls on the Same Axes**

scores were greater than the boys' in originality component of non-verbal creativity.

DISCUSSION

Freedom of thought and actions enjoyed by the students in their families was considered as the independent variable in the present study. Objectives of the present study were to determine, whether there was any relationship between Freedom and Creativity with its different components – Fluency, Flexibility, Originality. The findings and discussions were stated below:

- For boys 'Freedom group' was always significantly superior to the 'Restriction group' in Fluency, Flexibility and Originality of non-verbal creativity.
- For girls 'Freedom group' was not significantly differed from the 'Restriction group' in Fluency, Flexibility and Originality components of non-verbal creativity.
- For boys, there were positive significant relationships existed between Freedom and components of non-verbal creativity.
- For girls, there was no significant relationship between Freedom and the components of non-verbal creativity. Hence, the hypothesis was totally rejected in the study.

The present study revealed that Freedom was positive significantly correlated with creativity along with its three components – Fluency, Flexibility and Originality. The hypotheses H₁ & H₃ were totally accepted but the hypothesis H₂ & H₄ were totally rejected. The findings indicated that the boys who got more freedom in thinking, in playing with different items, in making models, games, in expressing ideas in their families had developed their creativity. The findings were in tune with the theoretical expectation. Also that findings got supports from the studies done by Sharma, R. (2011), Barker, E. (3rd August, 2011) and Rosso, B. (2011). But in case of girls, the 'Freedom group' was not significantly differed from the 'Restriction group'. Also, for girls, the components of non-verbal creativity were not significantly correlated with freedom. These findings might get support from the view that not only freedom made them superior to the others, they needed extra ones in the development of creative potential in this society and culture.

Conclusion

On the basis of the results, findings and discussions of the study, the present researcher concluded the followings:

- The boys who enjoy high freedom in thinking and actions in their families are more fluent, flexible and originator of new ideas and productions. The boys of 'Freedom group' are significantly advanced to the 'Restriction group' in fluency, flexibility and originality scores of non-verbal creativity. But this is not true for the girls.
- A positive significant relationship exists between Creativity and Freedom of thought and actions enjoyed by the students in their families for boys but not for girls.

A positive environment or situation that is open, democratic and free may be said to contribute positively to the release and development of creative potential for boys but the parents of this society & culture allow their daughters freedom under some circumstances which is not to satisfy their internal urges in doing activities or to develop creativity.

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