
A study of creativity of senior secondary school students in relation to their gender

*Umed Kumari

CREATIVITY

Creativity has been described as infinite ranging from a novel solution to a problem, an invention, composition of a poem and painting, discovery of new chemical processes, an innovation in law, an innovation in musical dance, and fresh way of thinking about a problem, rearranging old learning and much more. Creativity is the ability to produce work that is both novel, original, unexpected and appropriate. Creativity is important at both the individual and societal levels. Creativity can lead to new scientific findings, new movements in Arts, new inventions and new social programmes in the rapid developing era. Creativity is the result of the combined effect of thinking, feeling, sensing and intuiting. All the functions of the human brain/mind system are involved at higher and higher levels when creativity occurs.

Creativity is one of the aspects of intelligence, which the traditional intelligence testing barely touches. New theories of cognitive development have encouraged researchers to examine this important component of intelligence. A number of definitions of creativity have been given by psychologists. Some have based their definitions on the product of creativity, others on the process of creativity and some have included both the product and the process. Stein's definition makes product as the basis of his definition of creativity. "Creativity is that process which results in a novel work that is accepted as tenable or useful or satisfying by a group of some point in time" (Stein, 1974). Murray (1959) gives a definition which is similar to that of Stein: "Creation, in many contexts of the present disclosure, will refer to the occurrence of a composition which is both new and valuable". For Mednick (1984) creative thinking consists of forming new combinations of associative elements, which combinations either meet specified requirements or are in some way useful. The more mutually remote the element of the new combination, the more creative is the process or solution.

In the Encyclopedia of psychology – creativity is defined as "The ability to see new relationships, to produce unusual ideas and to deviate from traditional patterns of thinking? According to Torrance (1988), "Creativity is an imaginatively gifted recombination of old elements into new configurations—what is required now." Guilford in his Structure of Intellect gives two modes of thinking: convergent thinking refers to the generations of ideas, arising from given information which emphasis on achieving conventionally acceptable answer. Divergent thinking, on the other hand, is viewed as involving the production of as many answers as possible to a problem. In other words, convergent thinking lays emphasis on logical necessities, whereas divergent thinking emphasizes on logical possibilities. Creative thinking is divergent thinking of a kind that produces many different answers or solutions to a problem or situation and generates a clever idea. Creative children have a way of going beyond the set limits in thinking. They like to be originators and developers of ideas and are not put off by traditional orthodox people.

Hence, creativity is the result of the combined effect of thinking, feeling, sensing and intuiting. All the functions of the human brain/mind system are involved at higher and higher levels when creativity occurs. These two viewpoints can be illustrated with the help of following diagrams.

REVIEW OF LITERATURE

Devi (2001) found that boys and girls differ significantly on fluency as a factor of creative thinking. The girl had better fluency score than the boys in fluency, flexibility and originality. **Jha (2012)** results depicted difference in creativity of the high school students of Ahmedabad with different levels of intelligence, self concept and anxiety. **Sharma and Rai (2012)** showed that both Boys and Girls of Juvenile delinquent children having difference in the respect of Creativity, Fluency and Flexibly but author respect of Originality dimension, they don't have difference within groups. It means we can say that Girls Juvenile delinquent children have more Creative level than

* Research Fellow, DEPARTMENT of Education Baba Mastnath University Rohtak

Boys Juvenile delinquent children of my study. **Jabeen and Khan (2013)** highlighted that in comparison to low achievers high achievers possess significantly high creativity potential, in comparison to low achievers; high achievers are significantly high in different areas of creativity, viz. fluency, flexibility and originality and also in comparison to low achievers high achievers possess significantly high self-concept. The study has also revealed that there is a positive and significant relationship between creativity and academic achievement and self-concept and academic achievement of high and low achiever groups. **Pathak (2013)** revealed that boys differ significantly in all variable of verbal creativity from girls. The finding also reveals that girls excelled boys in fluency, flexibility and originality aspects of verbal creativity. **Sharma and Gupta (2013)** revealed that girls are more creative than their counterpart's male students and urban students are more creative than rural students. **Kumar (2014)** found that superior intelligent students and low intelligent students differ significantly on fluency superior intelligent students are higher fluency than the low intelligent students.

NEED AND IMPORTANCE OF THE STUDY

There is no denying the fact that 'Creativity' does exist in all children and that it is unique in each individual. In some children, the creativity urge is strong enough to find expression. In others, it is under surface, waiting for an opportunity to disclose itself. As creativity is nourished, it thrives and flourishes; and as it is oppressed, it declines and withers. Therefore, the most crucial concern, today for schools has been to explore the aspect of creativity and how far it is being emphasized as part of schooling and in what ways does it contribute to creative expression among the students? It also requires an urgent attention to be paid to the harnessing of the qualities of creativity on the assumption that a learning society not only needs intellectually facile people but also, and more especially, creative and constructive people to attain the target of sustainable development not alone in the world of education but also in the making of a fast developing society per se. The primary function of education should be to identify creative potentialities in children and to plan the educational curricular and programmes, in such a manner that creative abilities are developed among them and their talents are harnessed to the fullest possible extent. This is a challenging task which the teachers must take up for the progress of the nation. With this basic assumption, the need for a study to examine the relationship of intelligence and levels of aspiration with the creativity of children seems quite important. Hence, humble attempt has been made to know the level of creativity of boy and girl students studying in senior secondary schools.

STATEMENT OF THE PROBLEM

A STUDY OF CREATIVITY OF SENIOR SECONDARY SCHOOL STUDENTS IN RELATION TO THEIR GENDER

OBJECTIVE OF THE STUDY

- To compare the significant difference in various dimensions of creativity (fluency, flexibility and originality) of boy and girl students of senior secondary schools.

HYPOTHESIS

- There is no significant difference in various dimensions of creativity (fluency, flexibility and originality) of boy and girl students of senior secondary schools.

METHODOLOGY

The descriptive survey method has been used in the present investigation because it is considered as one of the important method in education and it describes the current position of the research work.

POPULATION AND SAMPLE

Population involved all the senior secondary school students of XII class of two districts of Haryana. Further twenty schools have been selected randomly. A sample of 400 boy and girl students has been selected randomly.

TOOL USED

- Non-Verbal Test of Creativity developed by Baqer Mehdi (1973)

STATISTICAL TECHNIQUES USED

Mean, Standard Deviation and 't' test have been used to find the significance of difference between the means. Pearson's Coefficient of Correlation have been computed to analyze the relationships by using SPSS-20 version.

RESULTS

The results of the study of differential between boy and girl and boy students are given in table 1.

Table 1

Significance of difference in mean of various creativity dimensions of boy and girl students of senior secondary schools

Dimensions of Creativity	Number	Sex	Mean	S.D.	t-value
Fluency	200	Boys	34.13	5.73	5.259**
	200	Girls	37.06	5.38	
Flexibility	200	Boys	23.77	4.63	3.950**
	200	Girls	25.66	4.92	
Originality	200	Boys	6.93	2.89	5.792**
	200	Girls	8.58	2.78	
Total Creativity	200	Boys	64.84	9.82	6.528**
	200	Girls	71.30	9.96	

** Significant at 0.01 level

From Table 1 it is evident that the 't'-value on the first dimension of creativity, i.e., fluency of boys and girls is 5.259 which is significant at 0.01 level. It indicates that boy and girl senior secondary school students differ significantly on fluency. Further the mean scores reveal that girls (37.06) are found to be higher on fluency as compared to boys (34.13). It may, therefore, be concluded that girl students have more fluency in comparison to boy students.

The table 1 further reveals that the 't'-value on the second dimension of creativity, i.e., flexibility of boys and girls is 3.950 which is significant at 0.01 level. It indicates that boy and girl senior secondary students differ significantly on flexibility too. Further, the mean scores reveal that girls (25.66) are found to be higher on flexibility as compared to boys (23.77). It means that girl students have more flexibility in comparison to boy students.

From last third part of the Table 1 it is evident that the 't'-value on the third dimension of creativity, i.e., originality of boys and girls is 5.792 which is significant at 0.01 level. It indicates that boy and girl senior secondary students differ significantly on originality also. Further, the mean scores reveal that girls (8.58) are found to be higher on originality as compared to boys (6.93). It means that girl students were found to have more originality in comparison to boy students. It clearly follows that senior secondary school girl students in Haryana schools are found to be much better than their counterpart boys on creativity parameters of Fluency, Flexibility and Originality.

From last part of the Table 1 it is evident that the 't'-value on total creativity, of boys and girls is 6.528 which is significant at 0.01 level. It indicates that boy and girl senior secondary school students differ significantly on total creativity. Further, the mean scores reveal that girls (71.30) are found to be higher on total creativity as compared to boys (64.84). It means that girl students were found to have more creative in comparison to boy students. It clearly follows that senior secondary school girl students in Haryana are found to be much better than their counterpart boys on creativity parameters of Fluency, Flexibility, Originality and total creativity. Thus, the null hypothesis, "There is no significant difference in various dimensions of creativity (fluency, flexibility and originality) of boy and girl students of senior secondary schools" is rejected

IMPORTANT FINDINGS

It was found that boy and girl high school students differ significantly on fluency; Girl students having more fluency in comparison to boy students. Similarly, boy and girl high school students were found to differ significantly on flexibility, too; Girl students having more flexibility in comparison to boy students. So also on originality; Girl students having more originality in comparison to boy students. Girls students having more total creative in comparison to boy students. Thus, Girl students seemed to be superior to their counterpart boy students in all dimensions of creativity, that is, on fluency, flexibility and originality. The cult of creativity thus seems to more in favour of girl students than their counterpart boys.

DISCUSSION

This study aimed at studying creativity of boy and girl senior secondary school students of Haryana. The study reveals that female students are more creative than male students, which is in consonance with the findings of a foreign study by **Devi (2001)**, **Anvar (2012)**, **Sharma and Gupta (2013)** who found that girls are more creative than boys. But **Sharma (1981)** and **Sharma (1982)** found that male students are more creative in comparison to female students. Since the studies reveals contrast results it poses a stronger implication for a much larger study to show much authentic results.

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