



## Gender Differences in Creativity among School Students

### KEYWORDS

Creativity, Gender and Performance

Dr.Smritikana Mitra Ghosh

H/O. M. M. Ghosh, Saraju – Kuttir, Lower Burdwan Compound, Ranchi 834 001. Jharkhand.

### ABSTRACT

The aim of present study was to find out the gender differences in creativity among school students. The study was conducted on a sample of 100 school students (50 boys & 50 girls) of IX<sup>th</sup> and X<sup>th</sup> classes of Ranchi. Creativity Test developed by Chouhan and Tiwari (1974) was used to collect the data. To test the hypothesis 't' test was calculated. Result showed that there was a significant differences between boys and girls on creativity ( $t = 12.16, P < 0.01$ ). On the t-test, the two groups differed significantly on different dimensions of creativity test. Boys were more creative than girls.

### INTRODUCTION

The phenomenon of creativity is complex and multidimensional. Creativity refers to the invention or origination of any new thing (a product, solution, artwork, literacy work, joke, etc.) that has value. "New" may refer to the individual creator or the society or domain within which novelty occurs. "Valuable", similarly, may be defined in a variety of ways. It has been defined as the ability to bring something new into existence that was not there before (Webster, 1976). Originality and flexibility are two important characteristics of creativity. It is not only reactive but also proactive. The process of creativity involves the development of original ideas that are useful or influential. From the individual perspective, creativity is defined as an aspect of think, as a personality constellation, and as an interaction between personal properties, thinking and motivation. As a social phenomenon, creativity is facilitated by some social factors and inhibited by others. Creativity can also be defined as the process of producing something that is both original and worthwhile. When an individual is in the phase of adolescence, his creativity, quest for self-density and personality is being molded by various surrounding factors. Creativity is a critical aspect of a person's life starting from embryonic existence onward through adulthood. Creativity is the ability to see something in a new way, to view and solve problems in different ways, untried and unusual, and to engage in mental and physical experiences that are novel, unique or different. Creativity is ability to create or invent something new and original ability to solve problem. The creatively is an ability to recognize how the best process of developing new, rare or unique ideas. Creativity is an ability to distinguish how the best practice and unusual ideas can be applied in different situations. Runco (2003) defines creativity as problem solving or thinking that involves the construction of new meaning involves the construction of new meaning. Creativity is currently high in national priorities, generating summons for support from national science research boards (National Academy of Sciences, 2003; National Science Foundation, 2006).

More than thirty years ago, Kogan (1974) conducted an extensive and then-definitive review of gender differences in creativity. He opened his paper with a point that is as salient today as it was when it was written: Any behavioral scientist who would argue that one gender is more creative than another would face tremendous scrutiny and a row of critics. With some relief, he continued, he found "relative equality" in creativity among males and females.

### REVIEW OF LITERATURE

The question of gender differences in creative thinking is a complex, controversial and contentious topic. There are some biological differences between women and men. Ac-

cording to Gelman *et al.*, studying hormones and biological dissimilarities, men and women experience the world differently based upon hormones (Gelman, *et al.*, 1981). Although gender differences in creativity were assessed in several studies (Kogan, 1974; Tegano & Moran, 1989; Flaherty, 1992; Boling & Boling 1993; Dudek & Strobel, 1993), the results have been inconsistent. Some researchers found no statistically significant gender differences (Bromley, 1956; Alpaugh & Birren, 1977; Jaquish & Ripple, 1981; Agarwal & Kumari 1982). Male participant's performance on the creativity measures generally was better than that of females, with significant differences in two specific creativity tasks. Stoltzfus *et al.* (2011). Using a sample of Turkish University students, found men's self-descriptions to contain significantly higher levels of self-perceived openness and creativity than did the self-descriptions of women. In many studies, no discernible gender differences have been found (Kaufman, Baer, & Gentile, 2004). In other studies, women have surpassed men in creative ability (Reuter *et al.*, 2005; Wolfradt & Pretz, 2001), whereas in other comparisons, men outperform women (Cox, 2002; Dollinger, Dollinger, & Centeno, 2005). Conti, Collins and Picariello (2001) found that girls were less creative in competitive situations and boys were more creative in competitive situations. Lau and Li (1996) studied 633 Chinese students in grade five in Hong Kong. Among, students, boys were viewed to be more creative than girls. The results of Ruth and Birren's study (1985) showed that, the men performed better than the women.

### HYPOTHESIS

- ❖ The creativity of boys and girls school student differs significantly.

### SAMPLE

The sample of the proposed study will be selected from the different schools of Ranchi town. There were 50 boys and 50 girls respondents ranging age – group 14 to 16 years studying in class IX<sup>th</sup> and X<sup>th</sup>. All of these belong to middle socio-economic status.

### INSTRUMENT

Creativity Test by Chouhan and Tiwari (1974) to measure creativity of the school children. This test consists of 32 items covering a dimension of creative production, fluency, original power, flexibility and ingenious solution of problems.

### PROCEDURE

The Creativity Test was administered to both groups with instructions to complete all questions honestly and not to discuss the questions with fellow students. Scoring was done according to the respective scoring keys. In order to fulfill the hypothesis of the study the score obtained were analyzed

with mean scores, standard deviation and t values.

## RESULT AND DISCUSSION

Table -1

Mean scores, SD's and "t" value of the boy and girl groups on total Creativity Test.

Groups	N	Mean	SDs	SEM	Md	t	P Value
Boys	50	99.66	17.74	2.50	33.7	12.16	0.01
Girls	50	65.96	8.48	1.19			

Table -2

Mean scores, SDs and "t" values of the boy and girl groups in the dimensions of Creativity Test.

Groups	Creativity Production		Fluency		Original Power		Flexibility		Ingenious Solution of Problems	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Boys	10.8	1.91	29.37	2.56	11.51	1.2	10.51	1.98	10.11	1.58
Girls	9.06	2.13	25.45	3.76	10.42	1.88	9.49	2.02	8.59	1.75
t	4.35**		6.12**		3.63**		2.68**		4.90**	

\*\* Significant at 0.01 level.

The boy and girl groups differed significantly on the mean creativity score. It was observed that (Table - 1) the mean scores of boys is higher (M =99.66) than the mean scores of girls (M = 65.96). The 't' ratio is 12.16 which is statistically significant beyond 0.01 level of confidence. It may be concluded that boys have significantly higher creativity than girls. Findings from this study are consistent with most of the other research **Ruth and Birren** (1985), **Lau and Li** (1996) and **Stoltzfus et al** (2011).

Table 2 showed that boy and girl differ significantly in creativity dimensions of Creative Production, Fluency, and Original Power. Flexibility and Ingenious Solution of Problems. Boys have greater mean scores in all the five dimensions of creativity in comparison to their girl's counterparts. Result of present research has confirmed the hypothesis that "The creativity of boys and girls school student differs significantly".

## Conclusion

So it can be stated that boys were found more creative than girls.

## REFERENCE

- Boling S.E., & Boling, J.L. (1993). "Creativity and birth order/sex differences in children", *Education*, 114(2):224-226. | Conti, R., Collins, M., & Picariello, M. (2001). The impact of competition on intrinsic motivation and creativity: Considering gender, gender segregation, and gender-role identity. *Personality and Individual Differences*, 31, 1273-1289. | Cox, B. F. (2002). The relationship between creativity and self-directed learning among adult community college students. Unpublished doctoral dissertation, University of Tennessee, Knoxville. | Dollinger, S. J., Dollinger, S. M. C., & Centeno, L. (2005). Identity and creativity. *Identity: An International Journal of Theory and Research*, 5(4), 315-339. | Dudek, S.Z., & Strobel, M.G. (1993). "Cumulative and proximal influences on the social environment and children's creative potential", *Journal of Genetic Psychology*, 154(4):487-500. | Flaherty, M.A. (1992). "The effects of holistic creativity programs on the self concept and creativity third graders", *The Journal of Creative Behavior*, 26(3):165-171. | Gelman, D., John C., Eric G., Phyllis M., Danny F., Joe C. (1981). "Just how the sexes differ", *Newsweek*, 18: 72-83. | Karakitapoglu-Aygun, Z. (2004). Self, identity, and emotional well-being among Turkish University students. *The Journals of Psychology*, 138 (5), 457-478. | Kaufman, J. C., Baer, J., & Gentile, C. A. (2004). Differences in gender and ethnicity as measured by ratings of three writing tasks. *Journal of Creative Behavior*, 38(1), 56-69. | Kogan, N. (1974). Creativity and sex differences. *Journal of Creative Behavior*, 8, 1-14. | Lau, S., Li, W.L. (1996). "Peer status and perceived creativity: Are popular children viewed by peers and teachers as creative", *Creativity Research Journal*, 9(4):347-352. | National Research Council (2003). *Beyond productivity: Information technology, innovation and creativity*. Washington, DC: National Academies Press. | National Science Foundation. (2006). *Investing in America's future: Strategic plan FY 2006-2011*. | Reuter, M., Panskepp, J., Schnabel, N., Kellerhoff, N., Kempel, P., & Hennig, J. (2005). Personality and biological markers of creativity. *European Journal of Personality*, 19(2), 83-95. | Ruth, J.E., & Birren, J.E. (1985). "Creativity in adulthood and old age: Relations to intelligence, sex, and mode of testing", *International Journal of Behavioral Development*, 8:99-109. | Stoltzfus G., Nibelink B.L., Vredenburg D., & Thyrum E., (2011). Millersville University, Millersville, PA, USA. Social behavior and personality. *Society for personality research*, 39 (3), 425-432. | Wolfradt, U., & Pretz, J. E. (2001). Individual differences in creativity: Personality, story writing, and hobbies. *European Journal of Personality*, 15(4), 297-310.