



Dayamoyee Das
Research Scholar
Dept of Education,
University of Kalyani
dayamoyee.das@gmail.com

Relationship between Creativity and Self-Esteem among Undergraduate Students

Dayamoyee Das

Abstract:

Creativity is a human quality that empowers him/her to do something completely new. Considering that Self-Esteem, like many other psychological factors, may influence an individual's Creativity, the present study aimed to explore the relationship between Self-Esteem and Creativity. Undergraduate students of Nadia district of West Bengal were the population of this study. 165 undergraduate Science, Arts, and Commerce students, including 73 Males and 92 Females, were sampled from two colleges in Nadia district. A self-constructed Creativity test and Self-Esteem scale were used for data collection. The test consisted of several activities that measured Verbal Creativity components and Non-Verbal Creativity components. Spearman's Rank Correlation Coefficient was used to determine the relationship between Creativity and Self-Esteem. The results of the study revealed a positive significant relationship between Self-Esteem and all Verbal components of Creativity. Among the Non-Verbal components of Creativity, Self-Esteem was found to have a positive significant relationship with Fluency, Flexibility, and Elaboration. No significant relationship was found between Non-Verbal Originality and Self-Esteem. Self-Esteem was found to have a positive significant relationship with Total Verbal Creativity, Total Non-Verbal Creativity, and Total Creativity.

Keywords: Verbal Creativity, Non-Verbal Creativity, Self-Esteem.

1. Introduction:

Creativity is the ability to generate novel ideas and solutions. According to (Drevdahl, 1956) "Creativity is the capacity of persons to produce compositions, products, or ideas of any sort which are essentially new or novel, and previously unknown to the producer". Creativity can be broadly defined as a socially recognized achievement in which some fields of endeavor have novel products and as an ability expressed through performance on critical tests in which one person is compared to another on a specific scale (Barron & Harrington, 1981). On the other hand, Self-esteem refers to an "individual's positive or negative attitude toward the self" (Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995). Self-esteem reflects a person's perception of their worth and abilities. It is natural to think that a person's positive attitude about himself/herself will not make him/her hesitate to take new actions or thoughts. Hence a student's high self-esteem can develop his/her divergent thinking. The development of this creative power of human beings means the development of society. Considering that self-



esteem like many other psychological factors may influence a person's creativity, there has been some research on creativity and self-esteem (e.g., (Bahreman, Fallahchai, & Zarei, 2014); (Barbot, 2018); (Goldsmith & Matherly, 1988); (Kemple, David, & Wang, 1996); (Safara, Alkaran, Salmabadi, & Rostami, 2017); (Wang & Wang, 2016)). Another way to think about it is that a student's own innovation can boost his or her self-esteem. So, there may be a relationship between students' creativity and their self-esteem. So, thinking from both sides, there may be a relationship between students' creativity and their self-esteem.

2. Literature Review:

(Goldsmith & Matherly, 1988) aimed to find evidence that self-confidence is positively associated with creativity in their study. 118 college students from a large South Eastern University were the samples of the study. They examined correlations between three self-report measures of creativity and three self-report measures of self-esteem. The Pearson correlation coefficient was used for statistical analysis of data. The result revealed that Self-esteem and creativity were positively related.

(Raj, 2003) conducted a study on the relationship of self-esteem with creativity, intelligence, and socio-economic status of class 10 students studying in government schools in Punjab state. A survey-type descriptive research method was applied there. In this study, 769 students were taken as samples. The result showed a positive and significant relationship between self-esteem and non-verbal creativity but no significant relationship was found between self-esteem and verbal creativity.

(Kumar, 2016) investigated the nature of the correlation between self-esteem and creativity by taking B.P.Ed., B.Ed., M.P.Ed., and M.Ed or teacher trainees from West Bengal state as the study population. 942 teacher trainees (subjects) were randomly selected as a sample. Rosenberg's Self-esteem Scale and the questionnaire of Dr. K.N. Sharma's Divergent Production Abilities were used to measure self-esteem and creativity respectively. Data was collected using survey method. The results revealed that self-esteem and creativity may have a positive relationship between them ($r=0.034$). The value of r was 0.034 so no meaningful positive relationship between self-esteem and creativity was found in the study.

(Barbot, 2018) examined the multivariate relationships between creativity in three domains (Music, Literary-Verbal, and Graphic) and self-esteem in seven domains. 170 ninth to twelfth-grade adolescents were selected from two middle schools and two high schools in a large French metropolis. The Multidimensional Scale of Self-Esteem (EMES; Barbot, Safont-Mottay, & Oubrayrie-Roussel, 2018) and three production-based tasks were employed to assess Self-Esteem and Creative performance respectively. Findings indicated that the contribution of domain-specific self-esteem on domain-specific creativity greatly varies according to both the domains of creativity and self-esteem.

3. Research Gap:

Although several studies on the relationship between creativity and self-esteem were conducted outside India, there were very few such studies in India. To the knowledge of the researcher, research on the relationship between creativity and self-esteem among undergraduate students



as a population was almost non-existent in West Bengal. The researcher considered such a study reasonable and in her present study was interested in finding the relationship between creativity and self-esteem of undergraduate students in Nadia, West Bengal.

4. Objectives of the Study:

- i) To explore the relationship of Verbal components of Creativity in terms of Fluency, Flexibility, and Originality with the Self-Esteem of undergraduate students of Nadia in West Bengal.
- ii) To explore the relationship of Non-Verbal components of Creativity in terms of Fluency, Flexibility, Elaboration, and Originality with the Self-Esteem of undergraduate students of Nadia in West Bengal.
- iii) To explore the relationship of Total Verbal Creativity, Total Non-Verbal Creativity, and Total Creativity with the Self-Esteem of undergraduate students of Nadia in West Bengal.

5. Hypothesis of the Study:

According to the objectives of the present study, the following Null Hypotheses were formulated. Hypotheses $H_{0.1}$ to $H_{0.3}$ were formulated for Objective 1, $H_{0.4}$ to $H_{0.7}$ for Objective 2, and $H_{0.8}$ to $H_{0.10}$ for Objective 3.

H_{0.1}: There was no significant relationship between Verbal Fluency and the Self-Esteem of undergraduate students of Nadia district, West Bengal.

H_{0.2}: There was no significant relationship between Verbal Flexibility and the Self-Esteem of undergraduate students of Nadia district, West Bengal.

H_{0.3}: There was no significant relationship between Verbal Originality and the Self-Esteem of undergraduate students of Nadia district, West Bengal.

H_{0.4}: There was no significant relationship between Non-Verbal Fluency and the Self-Esteem of undergraduate students of Nadia district, West Bengal.

H_{0.5}: There was no significant relationship between Non-Verbal Flexibility and the Self-Esteem of undergraduate students of Nadia district, West Bengal.

H_{0.6}: There was no significant relationship between Non-Verbal Elaboration and the Self-Esteem of undergraduate students of Nadia district, West Bengal.

H_{0.7}: There was no significant relationship between Non-Verbal Originality and the Self-Esteem of undergraduate students of Nadia district, West Bengal.

H_{0.8}: There was no significant relationship between Total scores of Verbal Creativity and the Self-Esteem of undergraduate students of Nadia district, West Bengal.

H_{0.9}: There was no significant relationship between Total scores of Non-Verbal Creativity and the Self-Esteem of undergraduate students of Nadia district, West Bengal.

H_{0.10}: There was no significant relationship between Total Creativity and the Self-Esteem of undergraduate students of Nadia district, West Bengal.

6. Methodology:

6.1 Method of the Study: The descriptive survey method met the objectives of the present study and the research was quantitative in nature.



6.2 Population of the Study:

All undergraduate students of the Arts, Commerce, and Science streams of Nadia district of West Bengal was considered as the population of the present study.

6.3 Sample of the Study:

165 Undergraduate Students were taken as the sample of this study. 73 male and 92 female students were selected from the Arts, Commerce, and Science streams of Kalyani Mahavidyalaya and Chakdah College in Nadia, West Bengal.

6.4 Sampling Techniques: The Purposive sampling technique was used to collect data.

6.5 Variables involved in the Study:

(i) Creativity; (ii) Verbal Creativity: Fluency, Flexibility & Originality; (iii) Non-Verbal Creativity: Fluency, Flexibility, Originality & Elaboration; and (iv) Self-Esteem

6.5 Tools used for the study:

A Creativity test was developed to measure the Verbal and Non-Verbal components of Creativity of undergraduate students following instruments previously developed by various researchers and psychologists. The Creativity test was composed of nine activities. Activities one to five and nine were designed to measure Verbal Creativity and activities six to eight were designed to measure Non-Verbal Creativity. There were 19 items in total to measure students' Verbal Fluency, Verbal Flexibility, Verbal Originality, Non-Verbal Fluency, Non-Verbal Flexibility, Non-Verbal Elaboration, and Non-Verbal Originality.

The Self-Esteem scale consisted of twenty statements. Each statement contains four options. The options accompanying each statement were given on a four-point Likert scale. A total Self-Esteem score was calculated by adding together the scores obtained for each item.

The Validity of these two instruments was established through expert opinion and Reliability was determined by assessing internal consistency.

7. Data Analysis:

Data were analyzed using IBM SPSS Statistics 25 software. As all Creativity components and Self-Esteem data were not normally distributed, this study used non-parametric tests for hypothesis testing. Spearman's Rank Correlation Coefficient was used to determine the relationship between Creativity and Self-Esteem. The strength of the Spearman correlation was determined using the following guide (Yan, et al., 2019):

Table - 1: Strength of Spearman Correlations

Coefficient	Correlation Degree	Coefficient	Correlation Degree
$\rho = 0$	No correlation	$0.40 \leq \rho \leq 0.59$	Moderate
$0.00 < \rho \leq 0.19$	Very week	$0.60 \leq \rho \leq 0.79$	Strong
$0.20 \leq \rho \leq 0.39$	Weak	$0.80 \leq \rho \leq 1.00$	Very strong



7.1 Computation and Analysis of Data:

The null hypotheses $H_{0.1}$ to $H_{0.10}$ were formulated to explore the relationship between Creativity and Self-Esteem of Undergraduate students of Nadia district. These hypotheses were tested by calculating Spearman's Correlation coefficient. The test results were shown in Table-2, Table-3 and Table-4.

7.2 Relationship between Verbal Creativity and Self-Esteem:

The relationship between Verbal components of Creativity and Self-Esteem of Undergraduate students were arranged in Table-2. The null hypotheses $H_{0.1}$ to $H_{0.3}$ were tested here.

Table - 2: Relationship between Verbal Creativity and Self-Esteem

Variable-I	Variable-II	Spearman's Correlation Coefficient	Sig. (2-tailed)	Interpretation
Verbal Fluency	Self-Esteem	0.487**	0.000	Positive correlation
Verbal Flexibility		0.463**	0.000	Positive correlation
Verbal Originality		0.338**	0.000	Positive correlation

**correlation is significant at the 0.01 level & *correlation is significant at the 0.05 level

7.2.1 Observation: The calculated Sig. values associated with Spearman's rank correlation coefficient were found to be less than 0.05 for all Verbal components of Creativity. Hence null hypotheses $H_{0.1}$ to $H_{0.3}$ were rejected. To determine the strength and direction of the relationship between each Verbal component of Creativity with Self-Esteem, Spearman correlation coefficient values were observed. The correlation coefficients of Verbal Fluency, Flexibility, and Originality with Self-Esteem were 0.487, 0.463, and 0.338 respectively.

7.2.1 Interpretation: Each correlation was found to be statistically significant depending on the Sig. value. The strength of the relationship depending on the correlation coefficient was interpreted as follows:

- i) A moderate but positive correlation was found between Self-Esteem and Verbal Fluency, and between Self-Esteem and Verbal Flexibility of Undergraduate students of Nadia.
- ii) A weak but positive correlation was found between Self-Esteem and Verbal Originality of Undergraduate students of Nadia.

7.3 Relationship between Non-Verbal Creativity and Self-Esteem:

The relationship between Non-Verbal components of Creativity and Self-Esteem of Undergraduate students were arranged in Table-3. The null hypotheses $H_{0.4}$ to $H_{0.7}$ were tested.



Table - 3: Relationship between Non-Verbal Creativity and Self-Esteem

Non-Variable-I	Variable-II	Spearman's Correlation Coefficient	Sig. (2-tailed)	Interpretation
Non-Verbal Fluency	Self-Esteem	0.238**	0.002	Positive correlation
Non-Verbal Flexibility		0.165*	0.034	Positive correlation
Non-Verbal Elaboration		0.253**	0.001	Positive correlation
Non-Verbal Originality		0.091	0.243	No correlation

Observation: The calculated Sig. values associated with Spearman's rank correlation coefficient were found to be greater than 0.05 for Non-Verbal Originality and less than 0.05 for the remaining three components. Hence null hypotheses $H_{0.4}$, $H_{0.5}$ and $H_{0.6}$ were rejected and $H_{0.7}$ was accepted. To determine the strength and direction of the relationship between each Non-Verbal component of Creativity with Self-Esteem, Spearman correlation coefficient values were observed. The correlation coefficients of Non-Verbal Fluency, Flexibility, and Elaboration with Self-Esteem were 0.238, 0.165, and 0.253 respectively.

Interpretation: The first three correlations in Table-2 were statistically significant but the last one was not statistically significant. The strength of the relationship depending on the correlation coefficient was interpreted as follows-

- i) A weak but positive correlation was found between Self-Esteem and Non-Verbal Fluency, and between Self-Esteem and Non-Verbal Elaboration of Undergraduate students of Nadia.
- ii) A very weak but positive correlation was found between Self-Esteem and Non-Verbal Flexibility of Undergraduate students of Nadia.

7.4 Relationship between Total scores of Creativities and Self-Esteem:

The relationship between Total scores of Creativities and Self-Esteem of Undergraduate students were arranged in Table-4. The null hypotheses $H_{0.8}$ to $H_{0.10}$ were tested here.

Table - 4: Relationship between Total scores of Creativities and Self-Esteem

Variable-I	Variable-II	Spearman's Correlation Coefficient	Sig. (2-tailed)	Interpretation
Total Verbal Creativity	Self-Esteem	0.455**	0.000	Positive correlation
Total Non-Verbal Creativity		0.216**	0.005	Positive correlation
Total Creativity		0.388**	0.000	Positive correlation



Observation: The calculated Sig. values associated with Spearman's rank correlation coefficient were found to be less than 0.05 in all three cases in Table-3. Hence null hypotheses $H_{0.8}$, $H_{0.9}$, and $H_{0.10}$ were rejected. To determine the strength and direction of the relationship Spearman correlation coefficient values were observed. The correlation coefficients of Total Verbal Creativity, Total Non-Verbal Creativity, and Total Creativity with Self-Esteem were 0.455, 0.216, and 0.388 respectively.

Interpretation: Each correlation was found to be statistically significant depending on the Sig. value. The strength of the relationship depending on the correlation coefficient was interpreted as follows-

- i) A moderate but positive correlation was found between Self-Esteem and Total Verbal Creativity of Undergraduate students of Nadia.
- ii) A weak but positive correlation was found between Self-Esteem and Total Non-Verbal Creativity, and between Self-Esteem and Total Creativity of Undergraduate students of Nadia.

8. Findings and Discussion:

In the present study, self-esteem was found to be positively correlated with all verbal components of creativity and all non-verbal components of creativity except non-verbal originality. A positive correlation of self-esteem with creativity has been found in several previous studies (e.g., (Kemple, David, & Wang, 1996); (Goldsmith & Matherly, 1988); (Bahreman, Fallahchai, & Zarei, 2014)). The present study is consistent with those studies. Strong correlations were not found in the current study, correlations were moderate to very weak correlations. The present study was also consistent with the strength of correlations found in various previous studies.

Research findings suggest that self-esteem plays a role in enhancing creativity. It is natural to think that students with high self-esteem have a high opinion of themselves and therefore can take risks without fear of failure. As a result, he/she can do new things without fear. This new creation gives birth to a creative work. Positive correlations found in research on self-esteem with creativity support such thinking.

9. Conclusion:

The results obtained in this study match the general thinking. Here a positive relationship was observed between students' Self-Esteem and their Creativity. Future research on the relationship between self-esteem and creativity on other populations may further confirm the findings. Research results show that increasing self-esteem will increase creativity, so everyone should focus on increasing students' self-esteem. From the home environment to the educational institution, the environment will be such that students develop positive thoughts about



themselves, i.e. self-esteem increases. Since the creativity of creative people works behind the formation of a better society, it is very important to cultivate creativity among students. Like many other factors, if self-esteem fosters students' creativity, it is surely good for students as well as society. On the other hand, looking at the positive relationship found in the research, it can be said that if the student's creativity increases, the success of his/her creative work will also increase his/her self-esteem.

10. Acknowledgement:

I would like to express my deep gratitude to my supervisor, Dr. Bijan Sarkar, Professor, Department of Education, University of Kalyani, for his invaluable guidance, support, and encouragement throughout this study.

References:

- Bahreman, H., Fallahchai, S. R., & Zarei, E. (2014). Relationship between Self-esteem and Creativity with Prejudice in Students. *Journal of Applied Environmental and Biological Sciences*, 4(1s), 51-53.
- Barbot, B. (2018). Creativity and Self-esteem in Adolescence: A Study of Their Domain-Specific, Multivariate Relationships. *The Journal of Creative Behavior*, 54. Retrieved from <https://doi.org/10.1002/jocb.365>
- Barron, F., & Harrington, D. M. (1981). Creativity, Intelligence, and Personality. *Annual Review of Psychology*, 32(1), 439-476. Retrieved from <https://doi.org/10.1146/annurev.ps.32.020181.002255>
- Drevdahl, J. E. (1956). Factors of importance for creativity. *Journal of Clinical Psychology*, 12(1), 21-26. Retrieved from [https://doi.org/10.1002/1097-4679\(195601\)12:1<21::AID-JCLP2270120104>3.0.CO;2-S](https://doi.org/10.1002/1097-4679(195601)12:1<21::AID-JCLP2270120104>3.0.CO;2-S)
- Goldsmith, R. E., & Matherly, T. A. (1988). Creativity and Self-Esteem: A Multiple Operationalization Validity Study. *The Journal of Psychology: Interdisciplinary and Applied*, 122(1), 47-56. Retrieved from <https://doi.org/10.1080/00223980.1988.10542942>
- Kemple, K. M., David, G. M., & Wang, Y. (1996). Preschoolers' Creativity, Shyness, and Self-Esteem. *Creativity Research Journal*, 9(4), 317-326. Retrieved from https://doi.org/10.1207/s15326934crj0904_3
- Kumar, B. P. (2016). Self esteem and creativity among students of teacher education programme a study. [Doctoral Dissertation, Visva Bharti University]. "Shodhganga". Retrieved from <http://hdl.handle.net/10603/234274>
- Raj, R. (2003). Study of self esteem of adolescents in relation to creativity intelligence and socio economic status. [Doctoral Dissertation, Panjab University]. "Shodhganga". Retrieved from <http://hdl.handle.net/10603/79707>
- Rosenberg, M., Schooler, C., Schoenbach, C., & Rosenberg, F. (1995). Global Self-Esteem and Specific Self-Esteem: Different Concepts, Different Outcomes. *American Sociological Review*, 60(1), 141. Retrieved from <https://doi.org/10.2307/2096350>
- Safara, M., Alkaran, Z. B., Salmabadi, M., & Rostami, N. (2017). Comparison of Creativity and Self-Esteem in Students with Employed and Household Mothers. *International Education Studies*, 10(2), 63. Retrieved from <https://doi.org/10.5539/ies.v10n2p63>
- Wang, Y., & Wang, L. (2016). Self-construal and creativity: The moderator effect of self-esteem. *Personality and Individual Differences*, 99, 184-189. Retrieved from <https://doi.org/10.1016/j.paid.2016.04.086>
- Yan, Z., Wang, S., Ma, D., Liu, B., Lin, H., & Li, S. (2019). Meteorological Factors Affecting Pan Evaporation in the Haihe River Basin, China. *Water*, 11(2), 317. Retrieved from <https://doi.org/10.3390/w11020317>