A STUDY OF LANGUAGE CREATIVITY OF SECONDARY SCHOOL STUDENTS

¹Dr. Neha J. Nandaniya

¹Assistant Professor, M.B.Patel College of Education, Vallabh Vidyanagar, Sardar Patel University, Gujarat, India, nehaeducation@yahoo.com

Abstract

In this researcher paper research put the focus on language creativity of secondary school students. Researcher had prepared Gujarati language creativity test for the students. Researcher has administrated this test on the sample of 300 (176 Boys, 124 Girls) students. Researcher has computed the P25 and P75 for establishing the level of language creativity and t-test for testing null hypothesis and drawn the findings.

Keywords: Language Creativity, Gender, Area, Level of Language Creativity.

INTRODUCTION

Creativity may be characterized as having two levels (Mansfield and Busse, 1981). One is professional creativity and the other is amateur creativity. Scientists are considered as professional creators because they may make significant and innovative contributions to their areas of specialization. Amateur creators also demonstrate creativity in comparison to their non-professional peers.

For instance high school science air winners or secondary students whose reports were considered unusually creative by their teachers may be characterized as amateur creators. Although most researchers focus on professional creators, amateur creators should be considered especially for primary, secondary, higher secondary school and college students, since it is generally assumed that most professional creators in science emerge from amateur creators.

A large amount of work has been done in exploring scientists creativity whereas few researchers have focused on students creativity in science. Most major approaches to Creativity of scientists have focused on products to identify person as creative.

Many researchers use publications, citation counts, expert ratings, and patent rates as external objective criteria for evaluating creativity of scientists. In addition, intelligence structure tests, divergent thinking tests, cognitive style tests and questionnaire of creative personality have been internal criteria for evaluating Creativity.

However, there is much controversy surrounding this issue. First of all most researchers only use citations in journals, not references in books. In addition, the quality of the cited publications is not considered. Secondly, tests for evaluating creativity are not appropriate tools to evaluate Creativity. Musil and Ondrasek (1982) argued that divergent thinking tests have to be designed to improve the prediction of specific types of creativity. Some researchers have designed specific tests for assessing Students Creativity such as physics creativity tests, mathematics creativity tests and chemistry creativity tests. Unfortunately, there are still no creativity tests published for commercial testing's.

Accordingly, a controversial question arises in these studies. Is the ability of problem finding in science equivalent to the ability of formulating hypotheses in science? Are they totally different Neha J. Nandaniya 6056

abilities? As a matter of fact, problems may exist even before formulating hypotheses, especially in general science teaching situations. In other words, teachers usually give students problems and then let students formulate hypotheses. However, although the ability of problem finding is a very important factor in creativity research, the ability of problem finding is not synonymous with creativity. In addition, it is necessary to determine if other significant factors affect student's Creativity.

Nowadays, the approach in assessing Student's Creativity is almost the same as the approach in assessing scientist's creativity. For instance, some schools use only IQ tests or academic tests especially in science content knowledge or performance in a science fair to evaluate if some students have potential talents. Also, research on student's Creativity has received little attention. Therefore, this study is aimed at a more sophisticated understanding of the nature of student's Creativity, determining significant predictors of student's Creativity and using multiple and more holistic approach to assess student's Creativity.

Language creativity of the students of the secondary schools is related with their intelligence and their achievement of the language subjects. How much knowledge the students have about some of the basic components associated with the language is the matter connected with language creativity. Therefore, in order to identify language creativity in the students of English medium schools, to develop it in the proper direction and to know its correlation with their intelligence, the present research was carried out.

Objective of the Research:

The objectives of the present research are as follows:

- 1. To decided the level of creativity of secondary school students.
- 2. To study creativity of secondary school students in respect to their gender.
- 3. To study creativity of secondary school student in respect to the areas.

Hypothesis of the Research:

Ho1 There will be no significant difference between the mean scores of creativity test of boys and girls.

Ho2 There will be no significant difference between the mean scores of creativity test of east and west area students.

Ho3 There will be no significant difference between the mean scores of creativity test of boys and girls of west area.

Ho4 There will be no significant difference between the mean scores of creativity test of boys and girls of east area.

Research Method

Survey Method of the research have been used for the present study.

Population and Sample of the study

The researcher has decided to conduct language creativity test for the students of secondary schools of Ahmedabad city. Therefore, the students, studying in Gujarati medium secondary schools of Ahmedabad city became the population of the study. For the final administration of the test, at first secondary schools of Ahmedabad city were selected through stratified random sampling method. From these schools, 300 students studying in secondary schools of Ahmedabad city were selected by using cluster sampling method as the sample for the present research.

Table-1 Details of the sample

Area	Boys	Girls	Total	
East	95	55	150	
West	81	69	150	
Total	176	124	300	

Research Tool

In the present research, the tools which were used for the purpose of data collection are as follows.

- 1. Self made language creativity test Details of Test as follow
- Language creativity test having of 6 subtests comprising of 18 items

Test: 1 Word Construction

Test: 2 Sentences Making Test

Test: 3 Illustration Test

Test: 4 Similarity Test

Test: 5 Innovative utility Test

Test: 6 Possibility Test

Data Analysis and Interpretation

Table-2 Score of creativity test according to

Level	s of creat	tivity

Levels	Class	No. of	%
		Students	
High	More than 50	76	25.33
Medium	42 To 49	152	50.67
Low	Less than 41	72	24.00
	Total	300	100.00

As shown in table-2, Out of 300 students, 25.33% of students were having high level of creativity, 50.67% of students were having medium level of creativity and 24.00% of students were having low level of creativity, and the graph of level of creativity of students of whole group of the sample is shown in graph no 4.1

Significance of the difference between mean scores on creativity test of boys and girls:

Table-3 Statistics of score on Creativity test of boys and girls

Gender	N	M	S.D.	SEd	t	Level of Sing.
Boys	176	44.2	6.25	0.69	9 2.91	0.01
Girls	124	46.2	5.58	0.09		0.01

As shown in table-3, Mean of scores obtained on creativity test by boys and girls are 44.2 and 46.20 respectively, S.D. are 6.25and 5.58; standard error of mean difference is 0.69 and t-value is 2.91. So, it can be said that calculated t-value is more than table value of 2.58 at 0.01 level. So, Null Hypothesis Ho1 "There will be no significant difference between the mean scores of creativity test of boys and girls" is rejected. Thus, it can be said that, significant difference was found between boys and girls. So, Mean score of girls was higher than mean score of boys. Therefore girls were superior to

boys in Creativity. This shows that gender is the variable which affects on creativity.

Significance of the difference between mean scores on creativity test of east and west area:

Table-4 Statistics of score on Creativity test of east and west area students

Area	N	M	S.D.	SEd	t	Level of Sing.
East	150	42.21	5.51	0.61	4.95	0.01
West	150	45.21	4.98			

As shown in table-4, Mean of scores obtained on Creativity test by east and west area students are 42.21 and 45.21 respectively, S.D. are 5.51 and 4.98; standard error of mean difference is 0.61 and t-value is 4.95. So, it can be said that calculated t-value is more than table value of 2.58 at 0.01 level. So, Null Hypothesis Ho2 "There will be no significant difference between the mean scores of creativity test of east and west area students" is rejected. Thus, it can be said that, significant difference was found between east and west area students. So, Mean score of west area students was higher than mean score of east area students. Therefore west area students were superior to east area students in Creativity. This shows that area is the variable which affects on creativity.

Significance of the difference between mean scores on creativity test of boys and girls of west area:

Table-5 Statistics of score on Creativity test of boys and girls of west area students

West Area	N	M	S.D.	SEd	t	Level of Sing.
Boys	81	45.38	5.57	0.96	0.09	N.S.
Girls	69	45.29	6.1			

As shown in table-5, Mean of scores obtained on creativity test by boys and girls of west area are 45.38 and 45.29 respectively, S.D. are 5.57 and 6.10; standard error of mean difference is 0.96 and t-value is 0.09. So, it can be said that calculated t-value is less than table value of 1.96 at 0.05 level. So, Null Hypothesis Ho3 "There

Neha J. Nandaniya 6058

will be no significant difference between the mean scores of creativity test of boys and girls of west area " is accepted. Thus, it can be said that, no significant difference was found between boys and girls of west area. So, Mean score of west area boys was nearly equal to mean score of west area girls. Therefore west area boys were equal to west area girls in Creativity. This shows that area with respect to gender variable does not affect on creativity.

Significance of the difference between mean scores on creativity test of boys and girls of east area:

Table-6 Statistics of score on Creativity test of boys and girls of east area students

East Area	N	M	S.D.	SEd	t	Level of Sing.
Boys	95	46.21	5.81	1.01	1.98	0.05
Girls	55	44.21	6.05	1.01	1.70	0.00

As shown in table-6, Mean of scores obtained on creativity test by boys and girls of east are 46.21 and 44.21 respectively, S.D. are 5.81 and 6.05; standard error of mean difference is 1.01 and tvalue is 1.98. So, it can be said that calculated tvalue is more than table value of 1.96 at 0.05 level. So, Null Hypothesis Ho4 "There will be no significant difference between the mean scores of creativity test of boys and girls of east area" is rejected. Thus, it can be said that, significant difference was found between boys and girls of east. So, Mean score of girls of east was higher than to mean score of boys of east area. Therefore east area girls were superior to east area boys in Creativity. This shows that area with respect to gender variable affect on creativity.

Findings

Main findings of the present research are as follows:

• There was significant difference between boys and girls. So, Mean score of girls was higher than mean score of boys. Therefore girls were superior to boys in Creativity. This shows that gender is the variable which affects on creativity.

- There was significant difference found between east and west area students. So, Mean score of west area students was higher than mean score of east area students. Therefore west area students were superior to east area students in Creativity. This shows that area is the variable which affects on creativity.
- There was no significant difference found between boys and girls of west area. So, Mean score of west area boys was nearly equal to mean score of west area girls. Therefore west area boys were equal to west area girls in Creativity. This shows that area with respect to gender variable does not affect on creativity.
- There was significant difference found between boys and girls of east. So, Mean score of girls of east was higher than to mean score of boys of east area. Therefore east area girls were superior to east area boys in Creativity. This shows that area with respect to gender variable affect on creativity.

References

- [1] Abraham A., Bubic A. (2015). Semantic memory as the root of imagination. Front. Psychol. 6:325 10.3389/fpsyg.2015. Abraham A., Windmann S. (2007). Creative cognition: the diverse operations and the prospect of applying a cognitive neuroscience perspective. Methods 42 38–48. 10.1016/j.ymeth.2006.12.007
- [2] Benedek M., Franz F., Heene M., Neubauer A. C. (2012). Differential effects of cognitive inhibition and intelligence on creativity. Pers. Individ. Dif. 53 480–485. 10.1016/j.paid.2012.04.014
- [3] Busse, T. V., & Mansfield, R. S. (1980). Theories of the creative process: A review and a perspective. The Journal of Creative Behavior, 14(2), 91–103, 132. https://doi.org/10.1002/j.2162-6057.1980.tb00232.x
- [4] Christensen B. T. (2007). The relationship of analogical distance to analogical function and preinventive structure: the case of engineering design. Mem. Cogn. 35 29–38. 10.3758/BF03195939
- [5] Colom R., Haier R. J., Head K., Álvarez-Linera J., Quiroga M. A., Shih P. C., et al. (2009). Gray matter correlates of fluid, crystallized, and spatial intelligence:

- testing the P-FIT model. Intelligence 37 124–135. 10.1016/j.intell.2008.07.007
- [6] Colunga E., Smith L. B. (2008). Flexibility and variability: essential to human cognition and the study of human cognition. New Ideas Psychol. 26 158–192. 10.1016/j.newideapsych.2007.07.012