

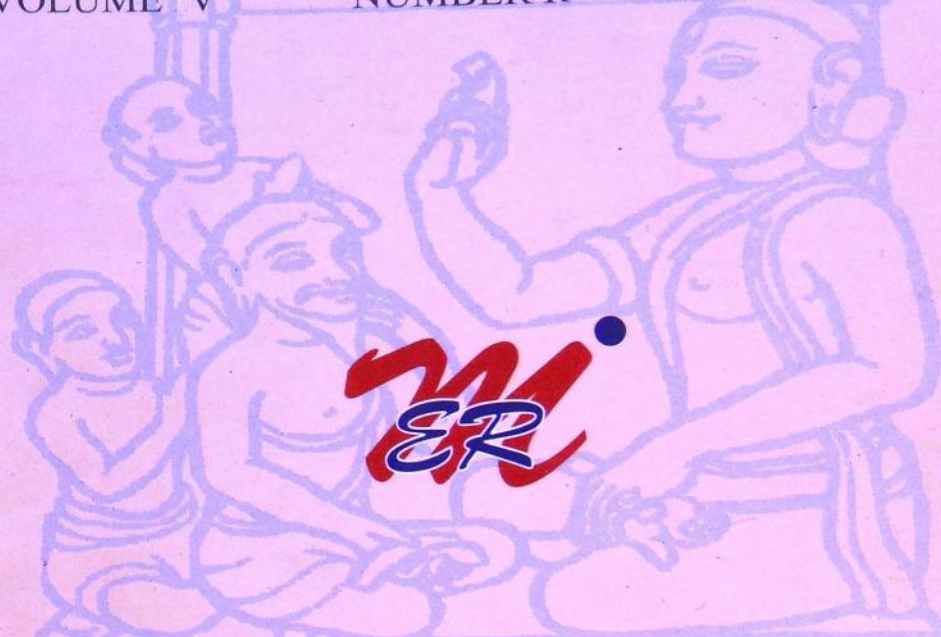
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Academic Achievement of High School Students in Relation to their Creative Environment

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Abstract

Creative environment plays an important role in enhancing the academic achievement of the learners. Creativity, as a natural endowment, needs stimulation and nourishment. Most creative talents, unless given proper training, education and opportunities for expression are wasted. Creative environment is an environment that is free, democratic and open. Home, School, Social, and Study or Work contexts are considered to be congenial or non-congenial to creativity. In this context, to probe whether creative environment has any bearing on academic achievement, the investigator conducted a study with two major objectives, i.e. to study the impact of various facets of environment stimulating creativity among high school students with gender and locale wise variations; and to find out the relationship between creative environment and academic achievement. The study was conducted over a sample of 100 secondary school students of Mandi district comprising of 50 boys and 50 girls belonging to both urban and rural area. The major findings of the study were, excluding home environment, all others, like school, social, and study/work environment as facets of creative environment are different in case of boys and girls; there exists significant difference in the creative environment of both rural and urban students; and there exists significant relationship between creative environment and academic achievement.

Introduction

Creativity is essentially a human phenomenon, which means to make a form out of what is formless. In other words, creativity means to bring into existence which never existed before. It always refers to some uncommon, unconventional and unusual mode of behaviour, creation or product. Novelty is an important characteristic of creativity. Everyone has some creative ability which differs in terms of degree. We cannot say that a person is not creative as we cannot imagine a person minus personality; however it is the matter of degree. Therefore creativity as a natural endowment needs stimulation and nourishment, which can be materialized through the creation of an environment conducive to the full growth of creative abilities of the children. 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. On the other hand a closed society, culture and situation may act as a strong deterrent to the development of initiative within the individual. All the researchers in the field of creativity admit the importance of environment in stimulating creativity. The more congenial the environment for creativity, the more a person is likely to exhibit his creativity.

Rationale of the Study

The rationale behind this study is, since the child's immediate environment is his home, school, society, and work or study groups, it is indispensable to spell out the criteria which are very much conducive in infusing creative abilities in children. So the facets these different types of environment require to be explored in connection

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with the creative environment for the students. As creativity accounts for academic achievement and creativity can be generated in a creative environment, sincere attempts have been made by the investigator to highlight the children's creative and academic potentialities. A number of studies have been conducted in this field. Joshi (1974), Dhalilwal and Saini(1976), Acharyulu(1977), Asha(1980), Nagpal(1997) and Nigam and Batani(2007) have all reported positive and significant relationship between academic achievement and creative environment. Studies reporting statistically significant relationship between creativity and academic achievement are many. But very few studies are conducted to find out the creative environment of students belonging to rural and urban locality and the relationship between their creative environment and academic achievement. Pandey(1981) found that there was a significant difference between the mean creativity scores of rural and urban students. Hence, sincere and scientific attempt has been made to find out how congenial and conducive is the environment in case of these secondary school students.

Objectives

The present study has been conducted keeping in mind the following objectives like:

1. To study the impact of various facets of environment stimulating creativity among high school students.
2. To study the impact of various facets of environment stimulating creativity in high school boys and girls.
3. To compare and find out the impact of various facets of environment conducive to the creative ability of boys and girls.
4. To compare and find out the relationship between the students having creative environment and their academic achievement score.

Hypotheses

The following are some hypotheses which are stated in null form, on which the entire study is based:

1. Home environment as an environment stimulation factor in creativity does not differ in case of boys and girls.
2. School environment as an environment stimulation factor in creativity does not differ in case of boys and girls.
3. Social environment as an environment stimulation factor in creativity does not differ in case of boys and girls.
4. Work or study environment as an environment stimulation factor in creativity does not differ in case of boys and girls.
5. There does not exist any significant difference in the creative environment of urban and rural students.
6. There does not exist any significant difference in the academic achievement of boys and girls.

7. There does not exist any significant difference in the academic achievement of urban and rural students.
8. There does not exist any significant relationship between the creative environment and academic achievement.

Design of the Study

In the present study, descriptive survey method was used.

Sample

The investigator, for the purpose of obtaining the requisite sample, first selected two secondary schools purposively, one from urban area and another one from the rural area. All the students studying in class IX of these two schools were considered as the sample of the study. The number of children in both the schools were 71 and 67 respectively. The investigator for the sake of convenient analysis randomly selected (on lottery basis) 100 Students constituting of 25 boys and 25 girls from each school.

Tools used

The investigator has used the tool developed by Khandwalla (1988) "Your Environment" which is in the form of a questionnaire consisting of 40 items as a whole and 10 items in each facets having both positive and negative statements including four facets of environment, namely home, school, social and work/study environment. Each facet comprises 10 items both positive and negative and these items correspond to 10 aspects namely stimulation, nurturance, relaxation, constructive feedback, learning opportunities, diversity view points, freedom with accountability for excellence, creators as role models, facilities for experimentation and norms of parents or boss figures. The respondent has to show his response by encircling the numbers ranging from 1 to 5 in which 1 refers to agreed and 2 refers to slightly agree which is meant for the negative statements written on the left side of the questionnaire and 4 refers to slightly agree and 5 refers to agree which refers to the positive statements of the right side of the questionnaire. If the respondent feels to be in between positive and negative he/she has to encircle the indifferent 3.

For ascertaining the academic achievement of the students the investigator has taken the marks of each respondent from the class 8th school board examination (2006) conducted by Himachal Pradesh Board of School Education.

Statistical Techniques Used

Mean, S.D.'s and 't'- test were used to analyze the collected data. In addition to this the technique of coefficient of correlation (Pearson's r) has been adopted to find out the relationship between academic achievement and creative environment.

Analysis and Interpretation of Data

A. Gender wise variations of students on different facets of Creative Environment

In order to find out the creative environment of boys and girls and whether there exists any difference in the creative environment facet wise in case of both boys and girls attempts have been made by the investigator to find out the same through the test of significance of difference between the two sub samples. As such the creative environment score of both boys and girls have been presented in the following table with its 't' ratio.

Table -I

Test of significance of difference between means of sub-samples

Facets of Environment	Pupils	N	M	S.D.	't'	Remarks (Level of significance)
Home	Boys	50	42.36	3.82	1.81	N.S.
	Girls	50	43.72	3.78		
School	Boys	50	40.82	4.18	3.00	.01
	Girls	50	43.58	5.05		
Social	Boys	50	43.22	3.15	2.08	.05
	Girls	50	44.68	3.98		
Study/Work	Boys	50	43.24	4.66	3.54	.01
	Girls	50	45.58	3.43		
Total	Boys	50	169.64	12.97	2.98	.01
	Girls	50	177.56	13.57		

*N.S. - Not Significant

An analysis of Table-I reveals the 't' ratios of boys and girls on different facets of creative environment. From the Table-I, it may be clearly observed that significance of mean differences between boys and girls on different facets of creative environment like, home, school, social, and study/work are 1.81, 3.00, 2.08, 3.54 and 2.98 respectively. It may be mentioned here that 't' ratio to be significant at .01 and .05 level with the degrees of freedom of 98 need the table values of 2.63 and 1.98 respectively. In the present investigation as the calculated 't' ratio between boys and girls in case of school, study/work and total exceeds the critical values of 't' at .01 level, it may be reported that there exists significant difference among these sub-samples whereas the calculated 't' value in case of social facet of creative environment is found to be significant at 0.05 level. On the other hand home as a facet of creative environment does not create any differentiation between boys and girls.

Locale wise variations of students on Creative Environment

In order to find out the Creative Environment of the boys and girls with regard to their locale wise variations the mean differences between urban boys vs.. rural boys, urban girls vs. rural girls and urban students vs. rural students were calculated. As such, the results depicting the mean values, standard deviation and t-ratio have been presented in Table-2.

Table-2

Mean, Standard Deviation and t-ratio of Creative Environment with locale wise variations

Pupils	N	M	S.D.	SE _p	't'
UB	25	171.76	13.06	3.65	1.16 N.S.
RB	25	167.52			
UG	25	186.04	10.80	3.02	5.61 Sig.
RG	25	169.08			
US	50	178.9	11.62	2.55	-4.15 Sig.
RS	50	168.3			

*N.S. - Not Significant

UB- Urban Boys UG- Urban Girls US- Urban Students

RB- Rural Boys RG- Rural Girls RS- Rural Students

Table-2 depicts the mean, standard deviation, standard error of difference and significance of difference scores both urban and rural students with locale wise break up on creative environment. An analysis of the table reveals the 't' ratios of 1.16, 5.61 and 4.15 in case of urban boys vs. rural boys, urban girls vs. rural girls and urban students vs. rural students respectively. When these values were subjected for the testing of their significance, the 't' ratios between urban girls vs. rural girls and urban students vs. rural students were found to be significant at .01 level whereas 't' ratio between urban boys vs. rural boys was found not to be significant.

C. Gender and locale wise variations of students on Academic Achievement

The investigator in order to know the gender and locale wise score distribution on academic achievement has taken the help of descriptive statistics. Further, to know the level of significance of difference between these sub-samples the data were subjected to calculation of 't'-ratio. As such, the results obtained are presented in Table-3.

Table-3

Gender and locale wise score distribution of Academic Achievement with their level of significance

Pupils	N	M	S.D.	SE _p	't'	Remarks
UB	25	387.08	71.15	19.92	0.24	N.S.
RB	25	391.88				
UG	25	414.08	58.64	16.41	1.77	N.S.
RG	25	384.88				
US	50	400.58	55.40	12.97	0.94	N.S.
RS	50	388.38				
TB	50	389.48	59.28	12.94	0.77	N.S.
TG	50	399.48				

*N.S. - Not Significant

UB- Urban Boys UG- Urban Girls US- Urban Students TB- Total Boys

RB- Rural Boys RG- Rural Girls RS- Rural Students TG- Total Girls

A close scrutiny of Table-3 reveals the mean scores and 't' ratios of the students with gender and locale wise breakup on academic achievement. Though the mean values show substantial differences among the students but their 't' ratios speak different result. On the basis of applying the formula meant for test of significance, difference in case of urban boys vs. rural boys, urban girls vs. rural girls, urban students vs. rural student and total boys vs. total girls the 't' ratios like 0.24, 1.77, 0.94, and 0.77 were obtained. All such 't' ratios were found to be not significant.

D. Relationship between Creative Environment and Academic Achievement

The scores obtained by the whole sample on the creative environment and the academic achievement scores were tabulated. The scores on the creative environment were then correlated with achievement scores obtained by the sample of 100 boys and girls. The product moment coefficient of correlation was calculated by applying the formula meant for deviation score method. It was found that the Pearson product moment correlation is 0.084. In order to find out the significance of coefficient of correlation the 't' ratio was computed. The observed value of 'r' when converted to 't' values, 't' was found to be 0.831. The table value of 't' for 98 degrees of freedom at .01 level of significance is 0.254 and at .05 level of significance is 0.195. The calculated 't' value of 0.831 exceeds the table value at both levels.

From the above result, it is found that excluding home environment all others like school, social, and study/work environment as facets of creative environment are different in case of boys and girls. There exists significant difference in the creative environment of both urban and rural students. The finding was in agreement with the findings of Pandey(1981) and Kaur and Kharb(1993).

The academic achievement of boys and girls does not differ significantly. The urban and rural students do not differ significantly with regard to their academic achievement. There also does not exist any significant difference in the academic achievement of urban boys vs. rural boys and urban girls vs. rural girls. The finding was contradictory to the findings of Pandey(1981). It may be due to the sample, tool used and geographical area taken for the research.

It is observed, that the urban and rural students as well as the urban and rural girls differ significantly with regard to their creative environment. Whereas there does not exist any significance difference in the creative environment of urban boys and rural boys, there exists significant relationship between the creative environment and academic achievement. The finding was in agreement with the findings of Joshi (1974), Dhaliwal and Saini(1976), Acharyulu(1977), Asha(1980), Nagpal(1997) and Nigam and Batani(2007).

Recommendations

In view of the findings of the study the investigator is inclined to give the following recommendations to both the teachers and parents:

- (i) Both the parents and teachers of rural and urban area should not make any differentiation in providing a creative environment to the boys and girls child.
- (ii) Both the boys and girls need be given maximum opportunity for self expression and original thinking.
- (iii) Neither the government nor the private bodies should make any differentiation in the educational system for both the rural and urban areas.
- (iv) Both the boys and girls are assets of country and in this context the parents as well as teachers should not treat them differentially.

Conclusion

Creative environment is basically an important factor in the life of each and every individual. It stimulates the divergent thinking ability of the learners ultimately having direct or indirect contribution on different aspects of an individual life. In the present study, the investigator has studied the relationship between creative environment and academic achievement which is reported to have positive relationship. Hence, the environment favourable or detrimental is responsible for making one creative or non-creative.

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