



CREATIVE THINKING ABILITY OF ADOLESCENT STUDENTS IN ARUNACHAL PRADESH IN RELATION TO SOME VARIABLES

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ARTICLE INFO

Article History:

Received 26th September, 2017
Received in revised form
21st October, 2017
Accepted 19th November, 2017
Published online 29th December, 2017

Key Words:

Creative thinking ability,
Adolescents, Intelligent,
Anxiety,
Academic Achievement.

ABSTRACT

The aim of this paper was to find out the creative thinking ability of school going adolescents and the influence of intelligence, academic achievement and anxiety and their interactions on the creative thinking ability of school going adolescents. A sample of 1500 adolescent students from class X and Class XII were selected randomly for the study using descriptive research method. Result revealed that the correlates like intelligence and academic achievements have shown positive relationship with the creative thinking ability of the adolescents. Educational plans and policies should be planned in tune with creative abilities of the youth so that their talents and creative thinking abilities get enhanced and may be used for constructive purposes.

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Citation: Dr. Boa Reena Tok. 2017. "Creative Thinking Ability of Adolescent Students in Arunachal Pradesh in Relation to some Variables", *International Journal of Development Research*, 7, (12), 17795-17798.

INTRODUCTION

Man possesses unlimited creative potentialities. The deeper we plunge into the ocean of creativity, the more we unearth and the richer we become in terms of the progress of civilization and the comforts of life. The development of any country or state depends upon her human resources and human resource is closely related with the level of creativity. There is no complete unanimity among those studying creativity as to what it really means (Freeman, Butcher and Christie, 1971). Creativity is complex in nature. It is difficult to understand by adopting one single definition. Different viewpoints have been put forward to explain the concept, emphasising different aspects of creativity. By and large, psychologists seem to agree that creativity involves the ability to produce original ideas and to perceive new relationships among unrelated things. However, it does not involve just an ability to produce original ideas. Creativity is multifaceted (Gulati, 1995, p.16). Adolescence is a translation stage between childhood and adulthood (Matter, 1984).

This adolescence period has been depicted (Hall, 1904) as a transitional period bridging the 'savages' of childhood with 'civilized' adulthood. This transitional period depicts that the adolescents are seen in the state of flux, high enthusiasm, utter despair, between energy and lethargy, between altruism and self-centredness. Because of these drastic changes adolescence is known as a period of storm and stress. According to Hall, the higher and more complete human traits are born in adolescence, so it is like a rebirth of the person (Hall, 1916). Creativity is at its full bloom in adolescence. Creative adolescents typically grow up to be creative adults, who often pursue the unusual careers which they envisioned during their youth (Nurmi and Pulliainen, 1991). Adolescents, since they have just stepped out of childhood, are still young. So it is necessary to know about their creative capacities and provide the right guidance so that they can utilize their capacities in the best way and reach new zeniths. The present study will be of great significance in the context of Arunachal Pradesh because the adolescents of this state are more in a disadvantageous position as compared to the adolescents of many other states of India. Education has to take the responsibility of identifying and developing the creative talents in the adolescents of Arunachal Pradesh.

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Review of Related Literature

A review of the literature on creativity and adolescents is presented below:

Nori (2002) studied the type of relationship between creativity and academic achievement among high school students in Shiraz city. There were 306 high school students (150 boys and 156 girls) in the research. To measure the rate of creativity, Nori (2002) used an Abedi questionnaire and CGPA for academic achievement. The analysis revealed that there was no significant relationship between creativity and academic achievement. In a research conducted by Diseth (2003), the openness to experience (a basic feature of creative individuals) in 315 undergraduate students was found to be suitably co-related with academic achievement. Mohammad et al (2012) compared the differences in creative thinking abilities between students with high and low levels of academic achievements among 208 secondary school students. Results of the study revealed that there was no difference between high achievers and low achievers in terms of creative thinking abilities.

Kaur (2012) studied anxiety as a correlate of creative thinking ability of adolescents and found less anxious children to be more creative and that high creative individuals tend to be slightly maladjusted. Dalal and Rani (2013) undertook a research on 640 students studying in Senior Secondary School in Haryana and found that significant difference existed between intelligence level of low creative and high creative students.

Objectives of the study

- To investigate the creative thinking ability of school going adolescents of three districts viz. Papumpare, Lower Subansiri and West Siang districts of Arunachal Pradesh.
- To study the influence of intelligence, academic achievement and anxiety and their interactions on the creative thinking ability of school going adolescents.

Hypotheses of the study

- There will be no significant influence of intelligence, academic achievement and anxiety and their interactions on the creative thinking ability of the school going adolescents.

Methodology of the study

METHODS

Since the aim of this study was to obtain precise information concerning the current status of creative thinking ability among the adolescent students, the descriptive research method was used for this study.

Tools Used

- Passi-Usha test of Creativity, 2. General Mental Ability test by Dr. R.P Srivastava and 3. Sarasan's Test Anxiety Scale.

Sample

1500 adolescent students from class X and Class XII from Papumpare, Lower Subansiri and West Siang districts of

Arunachal Pradesh formed the sample of the study. The researcher selected 18 secondary and senior secondary schools by adopting a random sampling technique. Further, out of these 18 secondary and senior secondary schools, a sample of 1500 school going adolescent students (10th to 12th grade) were selected randomly.

Delimitations of the study

- 10th to 12th grade school going adolescents in Papumpare, Lower Subansiri and West Siang districts of Arunachal Pradesh
- The variables viz. creative thinking ability, intelligence, academic achievement and anxiety

Analysis and Interpretation of Data

For analysis and interpretation of the data, percentages, the statistical measures of arithmetic mean and three-way ANOVA were utilized. The first objective of the present study was formulated to investigate the creative thinking ability of school going adolescents.

Table 1: Frequency table of creative thinking ability scores of school going adolescents in Papumpare, Lower Subansiri and West Siang districts of Arunachal Pradesh

C.I	f	X	Fx	fx ²
16-19	3	2	6	12
12-15	170	1	170	170
8-11	384	0	0	0
4-7	775	-1	775	775
0-3	168	-2	336	672
Total	N=1500		Σfx = -935	Σfx ² = 1629

From this table, the mean was calculated:

$$\begin{aligned} \text{Mean} &= AM + \frac{\sum fx}{N} \times i \\ &= 9.5 - 2.49 \\ &= 7.01 \end{aligned}$$

It was also found that 43.8% adolescents are above the mean score and 20.5 % are below the mean score. It indicates that majority of the school-going adolescents are near to the mean score or above the mean and their creative thinking ability needs to be taped appropriately for the economical and social development in Arunachal Pradesh. The adolescents who are below average in their creative ability, they need to be cared for by the teachers, parents and other educational functionaries for the development of their creative thinking ability.

The second objective was to study the influence of intelligence, academic achievement and anxiety and their interactions on the creative thinking ability of school going adolescent. For performing the three way ANOVA, first, the different variables viz. intelligence, academic achievement and anxiety were divided into high and low categories respectively. Those who scored below 33rd percentile were kept in the low scorers' category and those who scored above 67th percentile were considered the high scorers. The researcher used the three-way ANOVA (2x2x2) factorial design by taking the three in relation to creative thinking ability scores of school going adolescents. The data were tabulated into eight cells with 15 cases in each cell. The assumptions of ANOVA were also tested and the scores fulfilled the assumptions of normality, randomness and homogeneity (done through

Bartlett's test of homogeneity). Then the three way ANOVA followed. Table 2 shows the summary of the three way ANOVA done.

Table 2. Summary of analysis of variance of creative thinking ability scores of school going adolescents in relation to intelligence, academic achievement and anxiety

Sources of variance	Sum of squares	df	M.S	F
1 Intelligence	50.7	1	50.7	6.06
2 Academic Achievement	97.2	1	97.2	11.62
3 Anxiety	4.8	1	4.8	0.57
4 Intelligence x Academic achievement	5.63	1	5.63	0.67
5 Intelligence x Anxiety	1.63	1	1.63	0.19
6 Academic achievement x Anxiety	16.1	1	16.1	1.92
7 Intelligence x academic achievement x anxiety	145.16	1	145.16	17.36
Within treatments	937.4	112	8.36	

Interpretation of results

The obtained F-value was found 6.06 in case of high and low intelligent school going adolescents in relation to their creative thinking ability where as the criterion F-value for 1/112 df is 3.94 at 0.05 level of confidence. Therefore the hypothesis that there is no significant influence of intelligence on the creative thinking ability of school going adolescents gets rejected. Intelligence has some influence on the creative thinking ability and there is significant difference between the creative thinking ability in the mean scores of high and low levels of intelligence of school going adolescents.

The computed F-value came out to be 11.62 whereas the criterion F-value is 6.90 for 1/112 df at 0.01 level of confidence. It means there is significant difference in the creative thinking ability mean scores of high and low academic achievers and consequently the hypothesis that there is no influence of achievement on the creative thinking ability of the school going adolescents is rejected. The computed F-value was found 0.57 which is lesser than the criterion F-value 6.90 at 0.01 level and 3.94 at 0.05 level of confidence. From this, it is concluded that anxiety does not have any bearing on the creative thinking ability of the adolescents studied. Therefore, the hypothesis that there is no influence of anxiety on the creative thinking ability of school going adolescents gets accepted.

The obtained F-values 0.67, 0.19, and 1.92 relating to the double interactions between intelligence and achievement, intelligence and anxiety and achievement and anxiety were not found significant respectively. Therefore it is concluded that there is no influence of interactions of the variables when those are being put in pairs. But the influence of triple interaction (intelligence x academic achievement x anxiety) came out to be 17.36, which is greater than the criterion F-value (6.90) at 0.01 level of confidence for 1/112 df. It means when all the three variables are put together then some influence is visible on the creative thinking ability of the adolescents.

RESULTS

- The mean score of the 1500 school going adolescents was found to be 7.01 and it was also found that 43.8%

adolescents are above the mean score and 20.5 % are below the mean score.

- Intelligence and academic achievement has its influence on the creative thinking ability of the school going adolescents while anxiety didn't have any significant influence on creative thinking ability.
- Among the different interactions studied, only the triple interaction (intelligence x academic achievement x anxiety) had its influence on the creative thinking ability of the school going adolescents.

DISCUSSION AND CONCLUSION

The findings of the present study are greatly advantageous in understanding the nature of adolescents and their creative ability. This is an eye opener for the educational planners and administrators. Majority of the school-going adolescents are near to the mean score or above the mean and their creative thinking ability needs to be taped appropriately for the economical and social development in Arunachal Pradesh. The adolescents who are below average in their creative ability, they need to be cared for by the teachers, parents and other educational functionaries for the development of their creative thinking ability. Educational plans and policies should be planned in tune with creative abilities of the youth so that their talents and creative thinking abilities get enhanced and may be used for constructive purposes. Here the impact of some cognitive variables on the creative thinking ability of the school going adolescents was also found. The correlates like intelligence and academic achievements have shown positive relationship with the creative thinking ability of the adolescents. Here it is pertinent to mark that the classroom environment may be improved for the enhancement of cognitive correlates and these correlates will be helpful in the enhancement of the creative thinking ability of school going adolescents. The study is quite educative for the teachers in adopting modern approaches of teaching for enhancing the achievement of performance of school going adolescents and it will develop their creative thinking ability too.

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