Research Article

A Comparative Study of Creative Thinking between State Board And C.B.S.E School Students of Standard XI

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Abstract

This study was conducted to compare the creative thinking ability of State Board and C.B.S.E school students studying in XIth standard students .The sample includes 280 students from Chennai. The standardized test of 'Thinking creatively with words" designed and standardized by Baqer Mehdi was used to measure the creative thinking of the sample. The statistical techniques used were the Mean, Standard deviation, t-test and F-test and percentages of certain measures. The results reveal that the groups chosen by the State Board and C.B.S.E school students at higher secondary level do not influence their creative thinking ability. But there is significant difference between the State Board and C.B.S.E school students in the creative thinking ability.

Keywords: *Creative Thinking, State Board, C.B.S.E., Secondary Education, Comparative Study, Standard XI, Educational Psychology, Student Achievement.*

Introduction

Creative thinking is an elucide term, very difficult to define but very important for the progress of mankind. Progress is enhanced by creative, original and unusual outputs. When a child generates a novel and appropriate solution to the problem, the child and the idea are called creative. Thus creative thinking means originality and creativity is best explained as a unique mental process which results in bringing out a novel end product.

Over centuries the Indian philosophers have given deep and abiding thought to the theoretical and philosophical aspect of creativity and creative thinking. Vedic science says that human potential is capable of creating from the manifest of consciousness that entire oneis capable of desiring (Rama Pal, 1986).

Arieti (1976) writes that "creativity is a prerogative of man, can be seen as a humble human counterpart of God's creation. Rajput, J.S (2000) says that "creative thinking is often conceived to be the ability to bring something new into existence. It is not a fixed and static quality but something that changes over time".

Gupta and Ram Chandra das (I 994} found out that the factors domicile, gender and socioeconomic status of the postgraduate students do not influence their creativity. Jayesh, A. Naik (1998} found that the urban students have higher verbal and numerical creativity than the rural students. But there was no significant difference between the urban and rural students in their non-verbal creativity.

Mishra (1997} found that the school background had no significant independent effect on fluency, originality and overall creativity. Level of achievement had significant independent effect on fluency, flexibility and overall creativity of secondary school students. Sheela (2005} found that there is significant difference in the creative thinking ability of Kendriya vidyalaya and C.B.S.E students of standard XI.

Need and Significance of the Study

The Report of the Kothari Commission (1964-66} says "In an age which values discovery and invention, education for creative expression acquires added significance". Creative thinking is usually thought of as pertaining to arts. Actually creative thinking can occur in any kind of activity .Those who shows originality and ability to integrate the elements of a situation into a harmonious whole-whether as a parent, a doctor, or a football player are leading creative lives. They are able to project their unique personalities as determined by their genes and their culture into the development of a novel and useful effect, event, concept or theory. Creative thinking means a general freedom from rigid thought patterns and an ability to keep looking at situations in fresh ways .It also involves the ability to criticize one's own ideas, make revisions and polish up the final product. A free -roving imagination is essential

for obtaining the original idea, but systematic testing and evaluating of the idea, is required to shape it into final form.

It is a matter of regret that some teachers are more attracted towards non- creative students while the creative students are looked down because of their divergent thinking. In traditional classes teacher's behavior is generally anti- creative. The educational system has missed creative abilities in a child. In progressive countries constant efforts are being made to identify talented and creative students. Researches in the field of creativity in the last few years have been demonstrated the important role of schools in the development of creativity and creative thinking. Modern needs emphasis the demand for improvement and reshaping of school practices towards creative thinking. Hence there is a much felt need for an empirical study of creative thinking of XI standard.

Objective of the Study.

- To investigate the creative thinking of the Standard XI students.
- To find out whether is significant difference in creative thinking among. the standard XI students studying under different groups.
- To find out whether is significant difference in creative thinking among the standard XI student studying under two different types of boards of Education, C.B.S.E and State Board.

Methodology

Sample

The investigation involved the dependent variable mainly creative thinking of students and the influence of independent variables like groups chosen for studying at higher secondary level and board of education on the dependent variable, creative thinking. ,

The samples consisted of 280 higher secondary students selected randomly from two C.B.S.E and State Board schools of Chennai city. They belong to the mixed group and the age of 16-17 years. The student s studying the different groups of Standard Eleventh were selected with the assumption that ten years of schooling would have influence thaeir creative thinking ability and to prove that groups chosen for studying has no influence on their creative thinking ability. The three groups under state board syllabus are as follows.

Group-I (Maths, Physics, Chemistry, Biology/ComputerScience)

Group-II (Commerce, Statistics, Maths, Economics/ComputerScience). Group-III (History, Geography, Economics, Advanced Tamil).

The three groups under C.B.S.E syllabus are as follows.

Group-I (Physics, Chemistry Maths/Informational Practicals/ Hindi, Biology /Informational practicals).

Group-II (Business, Accounts, Economics, Maths /Hindi/ Informational practicals).

Group-III (History, Geography, Economics, Hindi).

Tool

The standardized test on 'Thinking creatively with words " of Baqer Mehdi (1985) was used for the research work. The verbal test of creative thinking includes four sub- tests, namely consequences test, unusual test, similarity test and product improvement test. These four subtests are grouped under four "activities". The first three items each and the fourth activity had only one item. Each activity measures originality, fluency and flexibility of the students. While scoring the test on creative thinking, each item was scored for fluency, flexibility and originality as per the directions given in the scoring sheet, to summarize scores for fluency, flexibility and originality obtained by the testing in different activities were followed .The composite creativity scores could be completed after converting the raw scores into standard scores by the statistical procedure given in the scoring guide.

Analysis and interpretation

The data collected were analysed using F-test, t-test and percentages. The results are as follows.

Table-1: Mean scores of Creative Thinking scores of students from State board and C.B.S.E

Variable	Number of sample	Mean	SD
C.B.S.E	140	115.07	36.7
State board	140	1°05.16	29.5

The mean scores of creative thinking of students of State board is 101.16.The mean scores of creative thinking of students of C.B.S.E was found to be 115.07.It is inferred that both the students are good in their creative thinking.

Table-2: Creative thinking of C.B.S.E students studying under different groups

Sources of variance {groups studying)	df	SSF	MSF	F-ratio	Level of significance
Between group	2	8666.78	4333.39	3.32	N.S
Within group	137	178564.51	1303.39		
Total	140	187231.29			

***N.S-Not Significant.**

Since the calculated value is lesser than the table value, it is inferred that the students studying under different groups of a C.B.S.E School do not differ in their creative thinking ability. This shows that groups chosen for studying do not. Influence the creative thinking ability of the students.

Table-2: Creative thinking of State board students studying under different groups

Sources of Variance {groups studying)	df	SSF	MSF	F-ratio	Level of significance
Between group	2	950.831	475.4155	0.5425	N.S
Within group	137	120048.39	876.2656		
Total	140				

***N.S-Not Significant.**

Since the calculated value is lesser than the table value, it is inferred that the students studying under different groups of a State board School do not differ in their creative thinking ability. This shows that groups chosen for studying do not influence the creative thinking ability of the students.

TABLE-3

Mean scores of Creative thinking ability between State board and C.B.S.E students

Variable	Mean	SD	SE	CR	Level of significance

C.B.S.E	115.07	36.7	3.97	2.49	0.05
State board	105.16	29.5			

Since the obtained value is greater than the table value at 0.05 level, it is inferred that the there is significant difference in creative thinking scores of State board and C.B.S.E-based students. This shows that the board of education influences the creative thinking ability of the students.

Table-4

School wise distribution of the sample according to various levels of creative thinking

Category	Levels of Creative thinking	
	Low	High
C.B.S.E	25%	29.29%
State board	26.43%	25%

The table shows the percentage of low and high creative thinkers of C.B.S.E and State board -based schools. It shows that both the schools have almost 25% of low creative thinkers. In C.B.S.E -based school, about 29% of high creative thinkers are present where it is 25% in the case of State board -based schools.

Findings and Discussion

In general it has been found that the students of standard XI who formed the sample for the present study possessed a low creative thinking indicated by the mean being below 50%. There is no significant difference in the creative thinking scores of the higher secondary students in terms of their board of school education and their groups chosen for studying. In general when the creative thinking ability of the students of the whole sample was analyzed it was found out that

- There is no significant difference between the students studying under group-I and Group ll.
- There is significant difference between the students studying under group-I and Group III
- There is no significant difference between the students studying under group-II and Group III.

From the analysis it was found out that the students studying arts group had more creative thinking ability than the science group students. There is significant difference in creative thinking scores between C.B.S.E and State board -based school students;

Conclusion

The present study revealed that there is significant influence of the type of school in the creative thinking of the students. Most of the programmes in the schools are heavily oriented towards information sharing rather than encouraging creative and cognitive activity Hence the schools should understand the responsibility of their role in fostering creative thinking in children by making the whole system of education need based and action-oriented. Favourable conditions in the school like psychological safety and freedom are necessary. Therefore, there is need to review and modify the programmes in schools. Teaching methods should be re-oriented so as to enrich the present generation in the creativity. Recognition and reward work for creativity would be integrated with the total evaluation process in the school. Thus to help the students to cope effectively with whatever state of the world they will encounter later in life creative thinking should be inculcated .

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