CHAPTER SEVEN

SUMMARY AND CONCLUSIONS
7.1 INTRODUCTION

Creativity has been a topic of interest to philosophers, poets, writers, artists and scientists since the days of Aristotle. It has been a common place to say that man differs from other animals because he is capable of reasoning. Creative imagination is the supreme power in man. Man is not only a social being but also a creative being and the greatest difference between man and animal is man’s power of creative imagination.

Although creative thinking is considered as the highest level of mental function and creative production, the peak of human achievement, only within the past few decades, creativity has become a central concern of educational research. Researches conducted during the past four decades have shown that creativity can be fostered while the earlier approaches were focused on conceptualisation, identification and assessment of creative talent. The emphasis has gradually shifted to curricular approaches. As a result, there is re-orientation in the study of creative talents. Torrence (1962), a pioneer in the field of creativity, investigated the strategies of fostering it. He suggested that creative abilities can be enhanced if appropriate supportive strategies and classroom practices are evolved and tried out.

Lazarowitz and Huppert (1980) in their study, aimed at developing creative thinking in the secondary school biology students. It is evident from the study that short treatment of two lessons produced difference in fluency and flexibility scores of the students.
If schools were to educate children to grow into fully functioning persons, abilities involved in creative thinking cannot be ignored. Abilities such as sensing problems, thinking of possible solutions and testing them are involved in creative thinking. Impairing the development of such activities cripples one’s capacity to cope with the problems of life.

Creativity as the unique characteristic of the human mind may be defined as “The capacity of an individual to create or produce an entirely new or novel idea or object or by the rearrangement or reshaping of what is already known”. It is both innate as well as acquired and a process as well as a product. It is also characterized by qualities like, originality, fluency, universality, adventurousness, and open-mindedness, a craving for change and novelty, ego involvement and divergent thinking. Definitions of creativity range all the way from the notion that creativity is simple problem solving to conceiving it as full realization and expression of all of an individual’s unique potentialities.

For the present study J.S. Rajput’s (2000) definition of creativity has been followed. Creativity according to him “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”.

Here creativity is not a fixed and static quality but changes overtime.

In the present study an attempt is made to study creativity among High school children in the South Kanara District located in Western coast of the state of Karnataka in South India.
7.2 STATEMENT OF THE PROBLEM

"A STUDY OF INTERACTING FACTORS FAVOURING AND DETERRING THE CREATIVE ABILITIES OF HIGH SCHOOL CHILDREN IN SOUTH KANARA DISTRICT".

7.3 OBJECTIVES OF THE STUDY:

The main objectives of the present Investigation is to study the creative abilities of IX Standard High School Children in South Kanara District and to identify the factors favouring and deferring development of creativity in High School Children in South Kanara District.

As the Study was carried out in two distinct Phases the objectives have been formulated separately for the First and the Second phase. The objectives of the First Phase relate to the entire sample of 1000 children selected. The objectives of the Second Phase relate to the two sub-samples of High Creative and Low creative children, selected from the initial sample of 1000 on the basis their marks on creativity tests.

7.3.1 Objectives of the First Phase

1. To study the level of creativity among High School children (IX standard) in South Kanara District.

2. To study the level of Academic Achievement among High School children (IX standard) in South Kanara District.

3. To study the Socio-economic background of High School children (IX standard) in South Kanara District.

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4. To study the gender difference in creative abilities of High School Children (IX standard) in South Kanara District.

5. To study the difference in creative abilities of Rural and Urban High School children (IX standard) in South Kanara District.

6. To study the difference in the level of creativity of High School children studying in different type of schools (IX standard) in South Kanara District.

7. To study the difference between the level of verbal and non-verbal creativity among High School children (IX standard) in South Kanara District.

8. To study the relationship between creative abilities and Socio-economic background of High School children (IX standard) in South Kanara District.

9. To study the relationship between creativity and Academic Achievement of High School children (IX standard) in South Kanara District.

10. To study the attitude of Teachers towards Creative children.

**7.3.2 Objectives of the Second Phase:**

1. To study the level of verbal creativity of High and Low Creative children.

2. To study the level of Non-Verbal creativity of High and Low creative children.

3. To study the frequency of Creative Activities of High and Low
creative children.

4. To study the level of Intelligence of High and Low creative children.

5. To study the level of Academic Achievement of High and Low creative children.

6. To study the Socio-economic background factors of High and Low creative children.

7. To study the level of School Adjustment of High and Low Creative children.

8. To study the gender ratio among High and Low creative children.

9. To study the difference between High and Low creative children with reference to
   i. Verbal creativity
   ii. Non-Verbal creativity
   iii. Creative activities
   iv. Intelligence
   v. Academic achievement
   vi. Socio-economic Background
   vii. School Adjustment

10. To identify the factors favouring and deterring creativity among High School children (IX standard) in South Kanara District.

11. To suggest measures to foster creativity among High School children in South Kanara District.
7.4 HYPOTHESES

In order to achieve the above objectives the following hypothesis were formulated and verified. Here also hypothesis have been formulated for the first and second phase separately as in the case of objectives. However, hypothesis for the first and second phase are numbered continuously.

7.4.1 Hypotheses for the First Phase:

\( H_1 \). There is no significant difference between the creative abilities of Boys and Girls of IX standard in South Kanara District.

\( H_2 \). There is no significant difference between the creative abilities of Rural and Urban IX standard Children in South Kanara District.

\( H_3 \). There is no significant difference between the Creative abilities of IX standard High School children in different type of schools in South Kanara District.

\( H_4 \). There is no significant difference between the level of Verbal and Non-verbal Creativity of IX standard High School children in South Kanara District.

\( H_5 \). There is no significant relationship between the Creative Abilities and the Socio-Economic background of IX standard High School children in South Kanara District.

\( H_6 \). There is no significant relationship between the level of creativity and the level of Academic Achievement of IX standard in High School in South Kanara District.
7.4.2 Hypotheses for the Second Phase:

H_7. There is no significant difference between the level of Verbal creativity of High and Low creative children.

H_8. There is no significant difference between the level of Non-verbal creativity of High and Low creative children.

H_9. There is no significant difference between the frequency of creative activities of High and Low creative children.

H_{10}. There is no significant difference between the level of intelligence of High and Low Creative children.

H_{11}. There is no significant difference between the level of Academic Achievement of High and Low creative children.

H_{12}. There is no significant difference between the Socio-economic background of High and Low creative children.

H_{13}. There is no significant difference between the level of school Adjustment of High and Low creative children.

7.5 SAMPLING

For the purposes of the Study, a total sample of 1000 IX standard children were selected for the First Phase of the Study. The sample was chosen with the idea of making it representative of all the variables considered for the study such as gender, locale, type of school, intelligence, socio-economic status, school adjustment, creative activities, academic achievement and socio-economic background characteristics of students. The Sample was thus made representative of IX standard from the High Schools in South Kanara District.
Children for the Study were chosen from 40 randomly selected schools out of 207 schools in South Kanara District. Out of 40 selected schools 21 schools were urban, 19 schools were Rural and 20 were Government schools and 20 were Aided schools.

The sample of 1000 children consisted of 489 boys and 511 girls, 514 from government schools and 486 from Aided Schools, 517 children from urban area and 483 from Rural area.

To determine the attitude of teachers towards creative children 30 teachers (both male and female) teaching IX standard class in High Schools of South Kanara District were randomly selected.

In the Second Phase of the study out of 1000 children, 145 children were chosen as High creative and 133 were chosen as Low creative on the basis of their scores on the Creativity Tests.

7.6 TOOLS FOR THE STUDY

Keeping the objectives and Hypothesis of the First and Second Phase of the study in view, the following tools were employed.

1. Baqer Mehdi’s Tests of Creative Thinking- Verbal and Non-verbal to measure creative abilities.

2. Kuppuswamy’s Socio-Economic Status scale (Modified to suit the changed economic development) to determine socio-economic status.

3. Bhagia’s School Adjustment Inventory (Kannada version) to measure school adjustment.

4. Premalatha’s Non-verbal Test of Intelligence to measure intelligence.
5. Torrence’s Creative Activities Check list (Kannada Version).
6. Attitude scale for teachers to measure attitude towards creative children (developed by the investigator in Kannada version).

7.7 DESIGN AND PROCEDURE OF THE STUDY

The study is a descriptive analytical survey type of study. The data for the Study pertaining to different selected variables were collected from different High Schools in all the Talukas of South Kanara District. Only IX standard children selected from these High Schools were tested. This study was carried out in two phases.

**Phase One:** Selection of the initial sample of 1000 children and administering tests of creativity.

**Phase Two:** Selection of two sub-samples of High and Low Creative children from the initial sample and administering the tests of other variables to these groups. Finally the data collected were analysed and interpreted.

For the purpose of collecting the data the list of High Schools was collected from the concerned department and among them sample schools were selected. Then the Investigator directly approached the Heads of Institutions and obtained the permission to administer the tests of creative thinking.

Creativity tests were administered to groups comprising of twenty five to thirty children each. As there were Two Tests viz., Verbal and Non-verbal, the verbal Test was administered in the morning and the Non-Verbal Test in the afternoon. After establishing a rapport with the subjects, they were allowed to answer the Tests. The
Investigator read out the instructions of the Tests to them. There was certain time limit for the Tests.

The answer sheets were scored according to the scoring instructions given in the Test Manual.

In the second Phase of study, Intelligence Test, School Adjustment Inventory and Torrence’s creative Activities check list were administered to both High Creative and Low Creative children and the answer sheets were scored according to the scoring instructions given in the respective Test Manuals.

The Socio-Economic status of the children was determined on the basis of weightage given to parents’ education, their profession and their income as suggested in the Test Manual. Teacher’s Attitude towards creative children was measured by administering the Attitude Scale prepared by the Investigator.

**7.8 STATISTICAL TECHNIQUES**

Data thus collected were tabulated and they were analysed under four sections.

a) In the first Section the significance of difference between creativity and other variables was analysed.

b) In the second Section the correlation between creativity and other variables was analysed.

c) In the third Section the characteristics of High and Low creative children were analysed and compared.

d) In the fourth Section the Attitude of Teachers towards
Creative children was analysed.

For the purposes of the above analysis the following techniques were followed.

i) Measures of Central Tendency and variability for the various Distributions of Scores.

ii) ‘t’ Test to determine the significance of difference between groups.

iii) Pearson’s Product Moment Correlation to determine the extent of correlation between creativity and other variables.

iv) Chi-Square Test to test interdependence of variables of Creativity and Socio-Economic Status.

v) Graphical representation of the data.

7.9 DE-LIMITATIONS OF THE STUDY

The study was undertaken with the following de-limitations.

i) The Study is limited only to selected High Schools in South Kanara District.

ii) The sample was limited to IX standard only.

iii) The indepth analysis of the interacting factors for the development of Creativity was limited to the sub-samples of High and Low Creative children.

iv) The factor of composition of school (Boys, Girls and Co-educational) was not considered as a separate variable.

7.10 MAJOR FINDINGS OF THE STUDY

The data were analysed systematically applying appropriate statistical techniques, the results were interpreted and the following
conclusions were drawn.

The following are the Major Findings of the present Study.

1. Boys are significantly more creative than Girls. The mean creativity (Verbal and Non-verbal) scores of Boys is 348.56 and that of Girls is 338.84.

2. Children residing in Urban area have given evidence of significantly greater creativity than those living Rural area. The mean creativity (verbal and Non-verbal) Score of Urban children is 357.86 and that of Rural children is 346.64.

3. There is significant difference between the creativity scores of Government and Aided school children. The children in Government schools are more creative than those of Aided School children. The mean creativity scores of Government school children is 361.49 and those of Aided school is 356.26.

4. The level of Non-verbal creativity of the Sample is significantly higher than the level of verbal creativity. The mean score is 200.32 for Non-verbal creativity and 148.86 for verbal creativity respectively.

5. There is significant relationship between creativity scores and Socio-Economic status of High School children. These two-variables are dependent on each other. The value of $X^2$ is 6.04 which is significant.

6. There is significant relationship between creativity scores and Academic Achievement of High School children. There is moderate positive correlation of 0.336 between these two variables.
7. High creative children differ significantly in the level of Verbal creativity from Low creative children. The mean verbal creativity scores of High and Low creative children are 182.77 and 129.14 respectively.

8. High creative children have scored high in Non-verbal creativity Tests than Low creative children which is indicated by a significant difference between the two groups. The mean Non-verbal creativity score of High creative children is 229.94 and that of Low creative children is 170.60.

9. High creative children have shown significantly higher frequency of creative activities than Low creatives. The mean frequency of Creative activities of High creatives and Low creatives are 55.15 and 48.88 respectively.

10. There is significant difference between the level of Intelligence of High and Low creative children. The mean score of intelligence of High creative children is 155.41 and the mean score of Low creative children is 149.5.

11. High creative children have shown better Academic Achievement than Low creative children. The mean Achievement score of High creative children is 375.84 and Low creative children is 288.01.

12. There is significant difference between High and low creative children with respect to their Socio-economic status. High creative children tend to hail from better Socio-Economic families compared to Low creative children. The mean Socio-Economic Status score
of High and Low creative children are 18.03 and 15.59 respectively.

13. High creative children are better adjusted to school life than Low creative children because the result showed that there is significant difference between the level of school Adjustment of these groups. The mean adjustment score of High creative children is 111.13 and the mean adjustment score of Low creative children is 105.59.

14. With respect to Gender out of 145 High Creative children there are 75 Boys (51.7%) and 70 Girls (48.3%). Even in the Low creative children out of 133 there are 60 Boys (45.1%) and 73 Girls (54.9%). The difference between the percentages of boys and girls in between the groups is not much. It is concluded that the probability of a boy or girl becoming a high creative or a low creative scorer is equal.

15. With regard to locale out of 145 High Creative children 106 (73.1%) are from urban area and 39 (26.9%) are from Rural area. Out of 133 Low Creative children 50 (37.6%) are from urban and 83 (62.4%) are from rural area. This result is on the expected lines because in the urban area more opportunities for fostering the creative abilities. In rural area such environment is lacking and, of course children's creativity is not fostered properly.

16. Most of the High Creative children are from Aided schools and Low Creative children are more in Government schools than Aided schools. Out of 145 High Creative children 39 (26.9%) are from Government schools and 106 (73.1%) are from Aided schools. Out of 133 Low Creative children 77 (57.9%) are from Government Schools and 56 (42.1%) from Aided schools. These results clearly
indicate that the Aided schools provide more congenial school environment and school life to foster creativity than Government schools.

17. Majority of the teachers have shown neutral attitude towards Creative children. The result shows that 6 out of 30 teachers have mild positive attitude towards Creative children and only 5 out of 30 teachers have mild negative attitude towards Creative children. Others (19 teachers) have shown neutral attitude towards Creative children.

7.11 SUGGESTIONS FOR IMPROVEMENT

On the basis of Analysis and Interpretation of the data and the conclusions drawn, the following suggestions are given to foster creative talents among children in High Schools.

1) The creative activities of children should be recognised and encouraged.

2) Special attention should be given to foster creative talents in children coming from Rural background.

3) Adequate materials have to be provided to children to express their creative talents. Locally available resources have to be used for this purpose.

4) Creative products of children should be exhibited through periodically arranged school level or interschool level exhibitions and Science fairs.

5) Steps should be taken to provide a congenial atmosphere to help
children to adjust to school life. A good guidance programme is very helpful to achieve this goal.

6) A number of special programmes like Brain storming sessions, Quiz, Problem solving sessions, Dramas, Music competitions etc., can be arranged in schools and children are encouraged to take part in such programmes. Teachers should play an important role in fostering creativity. They have to develop known talents of children directly and also teach their subject in a creative manner.

7) Teachers should be oriented towards the nature of creativity and creative children to enable them to develop positive attitude towards creativity and creative children.

8) Parental education programmes can be arranged to develop awareness of parents about the value of creativity in society.

9) The creative activities of children should be properly recognized. It should find a place in the total scheme of evaluation of children. Some weightage can be assigned for creative activities of children.

7.12 SUGGESTIONS FOR FURTHER RESEARCH

1) The same type of study can be taken in Primary Level.

2) An experimental programme can be developed and tried out to change the attitude of teachers towards creative children.

3) The personality pattern of High creative children can be studied in depth.
4) A qualitative study of creative works in folklore and folk arts in
Rural areas can be undertaken.

In a developing country like India there is an urgency of taking
up research in creativity and yet it is an irony of fate that research
effort in these areas is so scanty.