CHAPTER V

SUMMARY OF FINDINGS OF THE STUDY

5.1 Introduction

Man is creative in his ability to create new forms, and it is the spirit in man which is responsible for all achievements which are now enjoyed today. The outstanding creative ability of a fairly small percentage of the population is mankind's ultimate capital asset. It takes little imagination to recognize that the future of our civilization - our survival - depends upon the quality of creative imagination of the present generation of students. The teachers' role in the classroom is very important to influence the creativity of children in many ways. Teachers' classroom behaviour and approach to topics of learning, teachers' strategies, open-mindedness, authoritarianism and other teaching characteristics, directly influence students' creativity. Creativity of pupils must be felt, sensed, appreciated and adequately motivated by the teachers. Students need conscious, quality and creative teachers who expect the unexpected, explore and create newness, permit their pupils to risk-taking, facilitate brain-storming and openness, stimulate sensitivity to problems, encourage ideational fluency and redefining ability and act as "barrier - removing agents".

5.2 Classroom Interaction Analysis

An Analysis is a system seeking to observe and codify spontaneous verbal communication between a teacher and his pupils. The assumption underlying this is that teaching behaviours and pupils'
responses are expressed primarily through the spoken word on a series of verbal acts which occur one after another. These events are identified, then coded so as to preserve the observed sequences and tabulated in such a way that it represents a sample of the spontaneous teacher influence.

Teachers' classroom behaviour can be studied through actual observation of classes in natural setting. The process of teaching can be perceived as a series of verbal events occurring one after another. The chain of verbal events reveal the relationships between teacher behaviour and nature of the classroom dynamics. The nature of relationships helps in measuring educational outcomes associated with teaching. It also provides a method of quantifying concepts which refer to the spontaneous behaviour which can be measured indirectly in terms of pupils' attitudes and achievements. Recently more reliable and valid observation techniques have been developed to provide exact quantification and scientific analysis of classroom communication and these new methods are capable of more objective and reliable assessment of teaching efficiency.

5.3 The Need for the Study

Our success in the great enterprise of national reconstruction depends on the quality and number of pupils coming out of our schools and colleges. The future of these pupils, the schools, the community and the nation depends upon the teachers, who are the torch-bearers. They should respond to the creative need of the learner and be ready to go beyond the prescribed syllabus. Therefore, it was felt by the
researcher that Teacher Behaviour might influence creativity of pupils. Hence, it was decided to take up the problem of studying the creativity of pupils in relation to Teacher Behaviour in the classroom. The researcher also felt that there was a need for a deeper study of the concept of creativity, relating it with a few other variables, such as intelligence, personality and academic achievement of pupils, in order to enable teachers to be on the alert to spot such creative individuals who are promising nation-builders of the future. In the present day educational system, there is very little classroom environment for creativity. In the classroom it is the nature and efficiency of teaching that ultimately decide the returns on our educational investment. Therefore, it was felt that there is an urgent need to find out what type of teacher behaviour influences better pupil creativity at Higher Secondary level.

5.4 Scope of the Study

Creativity eventhough much spoken of is neglected in identification as an act in the classroom. Social interaction has been considered as an important condition for the development of creativity. Individuals affect and are affected by the environment in which they live. The conditions found in the social environment which are related to creativity, are those which encourage and facilitate openness in thought and action and provide scope for discovery of new ideas. Hence, it is essential to find out how creativity is fostered in the classroom. This study would also help the teachers to observe teachers' behaviour in the classroom and identify effective patterns of teaching behaviour related to pupils' creativity. It would also help the teachers to modify their teaching behaviour.
5.5 Statement of the Problem:-

In India, at present, research studies on teacher behaviour are considered to be of paramount importance. An indirect verbal behaviour on the part of the teacher by encouraging and inviting pupil participation enlarge their freedom of expression which in turn results in better teacher behaviour. Teacher Behaviour is an important factor which may either encourage or inhibit creativity in the classroom. Hence, it is essential to probe into the creative ability of pupils in relation to teacher behaviour in the classroom.

In order to identify the variables related to teacher behaviour and their impact on pupil creativity, the investigator has taken up the problem, "A study of the Relationship of Teacher Behaviour with creativity of Higher Secondary Pupils".

5.6 Variables studied in the Study:-

The following variables were studied in the present investigation:

I Teacher Variable:

Different communication patterns of the Teachers in the classroom.

II Pupil Variables:

(i) Verbal Creativity.
(ii) Non-verbal Creativity.
(iii) Intelligence.
(iv) Personality.
5.7 Definition of Terms:-

i) Teacher Behaviour:

It means teachers' influence patterns exerted in the classroom while teaching. The basic premise of Interaction Analysis is the belief that Teachers' classroom verbal behaviour creates a particular type of social, emotional climate in the classroom which has a direct effect in the attitude and behaviour of pupils. (Flanders 1970).

ii) Creativity:

In the verbal and non-verbal tests of creativity, tasks pertaining to four traits, viz., fluency, flexibility, originality and elaboration - have been covered. These four traits used in the test are considered to be the most important ones, and if taken together, they would give a fairly valid information about the creative potential of the individual.

5.8 Objectives of the Study:-

1 Main Objectives of the Study:-

i) To findout the relationship between the classroom behaviour of teachers and creativity of pupils.

ii) To study the various factors that go to build up the classroom behaviour of teachers.

iii) To bring out a better understanding of the concept of creativity.
II Secondary Objectives of the Study

i) To find out the effects of Teachers' classroom Interaction patterns upon pupils' creativity.

ii) To find out the relationship between different patterns of Teacher Behaviour and Academic Achievement of pupils.

iii) To study the effect of pupils' I.Q., on their creativity and academic achievement.

iv) To find out the impact of personality factors on pupils' creativity and academic achievement.

v) To study whether the communication patterns of these teachers differ according to the set of teachers and locality & type of management of schools, etc.

vi) To suggest remedial measures for enabling better classroom behaviour of teachers and consequently bringing out better pupil creativity.

5.9 Hypotheses of the Study

i) Teachers' "Indirect Influence Patterns" of classroom behaviour are not positively correlated to pupils' creativity.

ii) Teachers' "Direct Influence Patterns" of Classroom behaviour encourage pupils' creativity.

iii) Classroom behaviour of teachers and their academic achievement are independent.

iv) Intelligence and creativity of pupils are negatively correlated.
v) Intelligence of pupils does not enhance their academic achievement.

vi) Pupils' academic achievement and creativity have no mutual influence.

vii) Personality factors of pupils have no impact on their creativity and academic achievement.

viii) There does not exist any relationship between pupils' I.Q., and personality factors.

ix) The scores of creativity, I.Q., personality factors and academic achievement, do not differ according to the sex of pupils and locality and type of management of schools.

x) Teachers of different categories are alike in their communication patterns.

5.10 Tools used in the Study

The following tools were used in the study for data collection.

i) Modified version of Flanders Interaction Analysis categories system.

ii) 16 Personality factor Inventory by Cattell.

iii) Culture Fair Intelligence Test - Scale 3 - Cattell.

iv) Verbal Test of creative thinking by Baqer Mehdi.

v) Non-Verbal Test of creative thinking by Baqer Mehdi.

vi) Half-yearly Examination marks of pupils, obtained from their class teachers.
5.11 Sampling Design

The teacher sample comprises 26 female post-graduate English teachers and 34 male Post-graduate English teachers teaching at Standard XI in 30 Higher Secondary Schools in Coimbatore Educational District. Of them, 22 teachers are from Aided schools, 14 from Corporation Schools, 16 from Government Schools and the remaining 8 from Special Schools. The pupil sample comprises 775 female pupils and 725 male pupils studying under the aforesaid teachers. Of them, 550 pupils are from Aided Schools, 350 from Corporation Schools, 400 from Government Schools and the remaining 200 from Special Schools. The Schools are situated in Urban and Rural areas. Startified random sampling technique was adopted for the selection of samples.

5.12 Methodology of Study

Using the modified version of FIACS, the investigator observed one period of teaching of all those teachers at Standard XI, chosen for the study. From the observations recorded, a 17 x 17 matrix was prepared for each of those teachers. Based upon the individual matrices, the investigator calculated the scores of different ratios representing different communication patterns. Master matrices for Aided, Corporation, Government and Special School Teachers were prepared and analysed separately.

The investigator administered four tests, viz., verbal Test of creative Thinking, Non-verbal Test of Creative Thinking (by Baqer Mehdi), Culture Fair Intelligence Test Scale-3, Form-A and 16 Personality Factor Inventory by Cattell to 1500 pupils. The teaching of the teachers of these pupils have already been observed. The pupils were given enough
instructions to respond to all the four tests. The answer papers of creativity tests were scored and total scores were arrived at by adding those of verbal and non-verbal tests. The answer papers of Intelligence Test and Personality Inventory, were scored with the help of stencilled score cards. The raw scores obtained from the Intelligence Test were converted into I.Q., equivalents using the appropriate norm table. The raw scores of the 16 Personality Factor Inventory were then converted into sten scores using the appropriate table. The second Order Factor scores were derived from the sten scores on the primaries.

For measuring Academic Achievement of Students, their Half-yearly Examination marks were collected from the respective class teachers. Marks of different subjects for each pupil were added up and an average value (in percentage) was arrived at for all the 1500 pupils.

5.13 Analysis of Data

The investigator computed "Master Matrices" from the individual matrices, computed from the observations recorded in the class, separately for Aided, Corporation, Government and Special Schools. The master matrices were studied in four phases as follows:

i) Area Analysis

ii) Cell Analysis

iii) Graphical Analysis and

iv) Flow of Communications.

Based on the individual matrices, the investigator calculated different ratios representing different communication patterns. The mean
and standard deviation of the scores of creativity, I.Q., Personality and Academic Achievement had already been calculated.

't' tests and 'F' tests were applied to find out the significance of difference between the means of different groups of teachers and pupils, with regard to different scores. Correlational studies were also carried out between the scores of teacher variables and pupils variables. Inter correlations were also carried out between these variables using Pearson's Product Moment Method, to find out the nature of relationships that exist between all these variables.

5.14 Major Findings and Conclusions of the Study

The major findings and conclusions of the study are given as follows:

i) It is found that pupils' creativity scores correlate positively (significant at 0.01 level) with I/D, TQR, PTR and PIR, but negatively with CCR, T/P and TTR (significant at 0.01 level)

Hence it is concluded that the higher values of I/D, TQR, PTR and PIR influence better pupil creativity while the higher values of CCR, T/P and TTR cause low level of pupil creativity. It is obvious that "Indirect Influence Patterns" of the teachers' classroom behaviour influences better pupil creativity while "Direct Influence Patterns" of the teachers' classroom behaviour causes low level of pupil creativity.
ii) The four components of pupils' creativity, viz., fluency, flexibility, originality and elaboration (of ideas) correlate positively and significantly with the Teacher Behaviour ratios, viz., I/D, TQR, PTR, and PIR. But the aforesaid components of creativity correlate negatively and significantly with some other ratios of Teacher Behaviour, viz., CCR, TTR and T/P. A rise in the scores of I/D, TQR, PTR and PIR, helps to increase the scores on fluency, flexibility, originality and elaboration. But a rise in the scores of CCR, TTR and T/P leads to a decrease in the scores of fluency, flexibility, originality and elaboration.

Hence it is inferred that teachers' tendency to encourage, praise and guide pupils and allow them more freedom of expression, enables pupils to think creatively and produce many diversified ideas which are clever or uncommon (and can also be elaborated). The teachers' tendency to talk more and their authoritarianism curtail the spontaneous creative thought that arises in the minds of pupils. This results in creating a vacuum in the formation of ideational fluency, adaptive flexibility, originality and elaboration.

iii) The cumulative influences of Teacher Behaviour ratios, viz., I/D, TQR, PTR and PIR on pupils' creativity is established through multiple regression analysis. From the regression equation it is found that if the I/D score
increases by one unit, the creativity score of pupils increases by 2.64. With the increase in TQR score by one unit, the creativity score rises by 0.41. For the increase of one unit in PTR score, that of creativity increases by 1.56. Creativity score goes up by 2.15, if PIR score rises up by one unit.

It is predicted from the $R^2$ value, that Teachers' Indirect Behaviour (I/D), questioning ratio (TQR), allowing more pupil talk (PTR) and more pupil initiation (PIR) during classroom interaction, influence the creativity of their pupils, to go up to the tune of 81%.

iv) Through another multiple regression analysis, the cumulative influence of CCR, T/P and TTR on pupils' creativity was analysed. And it is found from the analysis that if the CCR score rises by one unit, creativity score goes down by 1.41. With the increase of T/P score by one unit, the creativity score decreases by 0.65. Creativity score is reduced by 1.31 units for every unit in the TTR score.

It is predicated from the $R^2$ value, that teachers' stereotyped way of teaching, purely sticking on to the content-oriented part of the syllabus (CCR), dominating tendency (T/P) and talking more by themselves in the class without allowing enough opportunities for pupil talk (TTR) hinder the flow of creative ideas of pupils to the level of 46%.
v) It is found from the study of correlations between Teachers' classroom behaviour and their pupils' I.Q., Academic Achievement and Independence (as an important personality factor) that I.Q., and Academic Achievement correlate positively (at 0.01 level) with I/D, TQR, PTR and PIR, but negatively with CCR, T/P, & TTR (at 0.01 level). There is a positive correlation between Independence and I/D, TQR, PTR (significant at 0.05 level) and PIR. But Independence correlates negatively with CCR, T/P and TTR.

vi) Hence, it is concluded that the higher the level of pupils' intelligence, the higher also will be the teachers' tendency to behave indirectly in the classroom. The higher the tendency of the teachers to behave indirectly in the classroom and encourage pupils' participation in the teaching-learning process, the higher also will be the pupils' academic achievement and Independence.

If the pupils are more intelligent, responsive, initiative and independent, the teachers will feel free to elicit more responses from the pupils by putting more questions. Pupils with high intelligence level, good academic records and more independent attitude, will be more responsive and initiative in their learning behaviour. Better the learning behaviour of the pupils, better also will be the teachers' classroom behaviour. Hence, it is evident that higher level of intelligence, academic achievement and
Independence of pupils will influence "Indirect influence Patterns" of teachers' classroom behaviour.

vi) From the study of the intercorrelations between 16 personality factor-second order factor scores of the pupil sample, it is found that Tough Poise correlates with independence positively and significantly (at 0.01 level). Anxiety has a significant (at 0.01 level) negative correlation with Independence. The negative correlation between Extraversion and Tough Poise & Extraversion and Independence are not significant.

Hence it is concluded that pupils' scores of Tough Poise and Independence go up when the score of Anxiety decreases.

vii) A study of the intercorrelations between pupil variables, viz., I.Q., Academic Achievement, Personality factors and creativity, reveals that I.Q., Academic Achievement, Tough Poise and Independence Correlate positively with creativity. Except the correlation of Tough Poise with creativity, the other three correlations are significant at 0.01 level. While Extraversion and Anxiety correlate negatively with I.Q., and Academic Achievement (not significant) Tough Poise and Independence correlate positively with I.Q., Academic Achievement. The correlations (positive) of Tough Poise with I.Q., and Independence with Academic Achievement are significant at 0.01 level. Extraversion and Anxiety correlate negatively with Tough Poise and Independence. The negative correlation found between Anxiety
and Independence is significant at 0.01 level.

Hence, it is concluded that, the higher the values of pupils' I.Q., Academic Achievement and Independence, the higher also will be the value of creativity. High scores of I.Q., and Independence promote Academic Achievement. An increase in the scores of Extraversion and Anxiety is followed by a decrease in the scores of I.Q., Academic Achievement and Creativity. On the other hand, the high scores of Tough Poise and Independence help increase the scores of I.Q., Academic achievement and Creativity.

viii) In the case of Aided School pupils, it is found that there is a significant (at 0.01 level) positive correlation between I.Q., & creativity, Academic Achievement & Creativity and Independence & Creativity. It is also found that I.Q., Academic Achievement and Independence correlate positively and significantly with each other.

Therefore, it is inferred that with regard to the pupils of Aided Schools, the high scores of I.Q., Academic Achievement and Independence influence pupils in achieving high in creativity also. Pupils possessing high I.Q., and highly independent nature, are also good academically.

ix) With regard to the pupils of Corporation Schools, it is found that I.Q., Academic Achievement and Independence correlate positively with creativity. The correlation between I.Q., and creativity is significant at 0.01 level, but that of the other two with creativity is very low.
I.Q., correlates positively with Academic Achievement. The correlation between Academic Achievement and Independence also, though positive, is very insignificant.

Hence it is concluded that in the case of the pupils of Corporation Schools, the higher their scores on I.Q., Academic Achievement and Independence, the higher also will be the scores on creativity. High scores on I.Q., result in inducing a corresponding rise in the scores of Academic Achievement.

In the case of Rural School Pupils, it is found that I.Q., correlates positively and significantly (at 0.01 level) with creativity. Academic Achievement and Independence also correlate positively with creativity, eventhough the correlation is not significant. The correlation between I.Q., and Academic Achievement is also positive but not significant. I.Q., and Independence also correlate positively.

Therefore, it is inferred that with regard to the pupils of rural schools also, there is a positive relationship with their I.Q., and creativity. The more the scores on Academic Achievement and Independence, the more also will be the scores on creativity. Pupils possessing high I.Q., are more independent and academically sound.

In the case of the urban school pupils, it is found that their I.Q., Academic Achievement, Independence and Creativity, correlate positively (at 0.01 level) with each
other except the correlation between Independence and creativity which is significant at 0.05 level. I.Q., Academic Achievement and Independence correlate positively with creativity. I.Q., Academic Achievement and Independence also correlate with each other positively.

Hence, it is concluded that, with regard to the pupils studying in urban schools, those with high I.Q., good academic records and independent nature, are highly creative. The higher the I.Q., the higher also will be the Academic Achievement and Independence of these pupils, and vice versa.

xii) To find out the influence of I.Q., Academic Achievement and Independence on creativity separately, simple regression analyses were attempted.

It is found that when the I.Q., score increases by unity (unit 1), creativity score increases by 0.89. It is predicted from the 'R' value that the I.Q. of pupils influences their creativity to the tune of 26%. When the Academic Achievement score rises by Unit 1, creativity score rises by 1.27. From the 'R' value, it is predicted that the Academic Achievement of pupils influences their creativity to the tune of 28%. If the score on Independence goes up by one unit, the score on creativity increases by 0.695. It is also predicted from the 'R' value that pupils' creativity is influenced
by their independent attitude to the tune of 15.6%.

A multiple regression analysis was attempted to find out the cumulative influence of pupils' I.Q., Academic Achievement and 4 Personality Factors (Extraversion, Anxiety, Tough Poise and Independence) on their creativity. It is found that if the I.Q., score increases by one unit, the creativity score increases by 2.04. With the increase in Academic Achievement score by one unit, the creativity score rises by 0.69. For the increase of one unit each in Extraversion and Anxiety scores, that of creativity decreases by 2.16 and 0.90 respectively. When the scores on Tough Poise and Independence rise up by one unit each, that of creativity also goes up by 0.41 and 1.36 respectively.

It is also predicted from the 'R' value, that pupils I.Q., Academic Achievement, Extraversion, Anxiety, Tough Poise and Independence influence their creativity to the tune of 31.3%.

It is found that there is significant difference (at 0.01 level) between the means of boys and girls with regard to their Anxiety (t = 3.71), Tough Poise (t = 3.85) and Independence (t = 19.17) scores. But there is no significant difference between the means of boys and girls with regard to their I.Q., Extraversion and Creativity scores.

Hence it is concluded that boys and girls differ from each other with regard to their Anxiety, Tough Poise
and Independence. Boys have scored more in Tough Poise and Independence. Therefore boys appear to be more socially outgoing, enterprising, decisive and independent persons than girls.

xv) It is found that there is significant difference (at 0.01 level) between the means of pupils studying in rural and urban areas with regard to their scores on I.Q., \( t = 9.02 \) Tough Poise \( t = 4.38 \) and creativity \( t = 10.79 \).

Hence, it is concluded that these two groups of pupils differ from each other in their intelligence, Tough Poise and Creativity. Urban pupils faired better than rural pupils in the three aforesaid scores. Having higher I.Q., and being more decisive and enterprising, urban pupils could score more on the creativity tests than the rural pupils.

xvi) It is found that there is significant difference between the means of Aided and Government School pupils with regard to their scores on I.Q., Academic Achievement, Tough Poise and Creativity (all four at 0.01 level) and Anxiety (at 0.05 level).

Hence it is inferred that these two groups of pupils differ from each other in their I.Q., Academic Achievement, Anxiety, Tough Poise and Creativity. The Aided school pupils have scored more in their I.Q., Academic Achievement, Tough Poise and creativity. Since these pupils (of Aided schools) posses higher I.Q., better academic
records and being of a more enterprising personality than pupils of Government schools, they could also score more on their creative aspect. Acquiring low scores on creativity by Government school pupils may be ascribed to possessing low I.Q., higher level of Anxiety and lack of motivation in doing difficult tasks.

It is found that there is significant difference between the means of pupils studying in Aided and Corporation schools, with regard to their scores on I.Q., Academic Achievement and Creativity (at 0.01 level) and Tough Poise (at 0.05 level). The pupils of Aided schools have scored more in their I.Q., Academic Achievement and creativity.

Hence, it is inferred that Aided school pupils are better in their I.Q., Academic Achievement and Creativity than their counterparts studying in Corporation schools.

It is found that there is significant difference (at 0.01 level) between the means of pupils studying in special schools (Anglo-Indian, Matriculation and Central Board of Secondary Education) and Government Schools, with regard to their scores on I.Q., Academic Achievement, Tough Poise, Independence and Creativity. The pupils of Special Schools have scored more in all these five scores mentioned above.
Hence, it is concluded that pupils of special schools have shown better performance in their I.Q., Academic Achievement, Tough Poise, Independence and Creativity.

Due to the possession of higher I.Q., and better academic records, the pupils of special schools are able to acquire higher scores in creativity than their counterparts studying in Government schools. Moreover, the special school students are more enterprising, daring and independent than those of Government schools. Hence, it is seen that their personality factors have also induced them to fare well in creativity.

It is found that there is significance of difference (at 0.01 level) between the means of pupils studying in special and corporation schools with regard to their I.Q., Academic Achievement, Independence and Creativity. The pupils of special schools appear to have obtained more scores in these four categories, than the pupils of corporation schools.

Hence, it is inferred that pupils studying in special schools are better than their counterparts studying in corporation schools, in their I.Q., Academic Achievement, Independent attitude and creativity. Because of having higher I.Q., better academic performance and more daring and independent personality the special school pupils are able to score more on creativity than the corporation school pupils.
xxi) It is found that there exists a significant difference (at 0.01 level) between the means of pupils of special and Aided schools with regard to their I.Q., Academic Achievement, Independence and Creativity scores. The pupils of special schools appear to have acquired more in their I.Q., Academic Achievement, Independence and Creativity, when compared to their counterparts of Aided schools.

Hence, it is inferred that the higher creative potentialities of special school pupils may be attributed to their having higher I.Q., achieving higher academically and possessing a more aggressive and independent personality than those of Aided schools.

xxi) A study of the inter correlations between I/D, TQR, CCR, T/P, TTR, PTR and PIR shows that I/D, TQR, PTR and PIR correlate positively and significantly with each other while CCR, T/P, and TTR correlate positively and significantly with each other. But there is negative and significant intercorrelation between the variables of one group and the variables of the other group. So it is clear that a rise in the I/D, TQR, PTR and PIR ratios is followed by a fall in the CCR, TTR and T/P ratios and vice versa. All these intercorrelations are significant at 0.01 level.

I/D, TQR, PTR and PIR are classified as "Indirect Influence Communication Patterns" of teachers while
CCR, TTR and T/P are classified as "Direct Influence Communication Patterns" of teachers. The Indirect Influence Patterns extend the pupils' participation in the teaching - learning process while Direct Influence Patterns restrict the pupils' participation in the classroom discussions.

Indirect Influence Patterns are characterised by teachers' tendency to accept, clarify, praise and develop the ideas and feelings expressed by the pupils, ask questions when guiding the content part, respond to pupils' ideas and feelings and to allow pupils either to respond to questions or initiate the classroom discussions. Direct influence patterns are characterised by teachers' tendency to dominate over the pupils in the class, express views through lecture, lecture, give directions and criticise the pupils with the expectation of compliance.

There is significant difference between the means of teachers working in Aided Girls' schools, Aided Boys' schools, Aided Co-Education Schools, Municipal Corporation Girls' Schools, Corporation Boys' Schools, Government Girls' Schools, Government Boys' Schools, Government Co-Education Schools, Schools adopting CBSE Syllabus, Matriculation schools and Anglo-Indian Schools, with regard to the ratios, viz., T/P, (F = 7.39), TTR (F = 47.92), TQR (F = 10.88), PTR (F = 13.6), PIR (F = 21.42) and TRR (F = 3.66).
Hence, it is clear that the tendency of the teachers to dominate in the classrooms, to prolong their talk in the classroom without considering the pupils' participation in the interaction to ask questions while guiding the content part of the classroom discussion, to allow for more pupils' participation in the teaching-learning process to encourage pupils to initiate their ideas and to respond to the ideas and feelings expressed by pupils, differ according to the type of schools.

There is no significant difference between the means of the teachers working in Aided and Corporation schools with regard to the teacher behaviour ratios - TQR 89, TQR, TRR, T/P, TTR, PTR, PIR and CCR. But there is significant difference (at 0.01 level) between the means of these teachers with regard to I/D (t = 3.15) only. Teachers of Aided schools scored more on I/D than the teachers of Corporation Schools.

Hence, it is concluded that the Aided school teachers are more indirect in their classroom behaviour, by way of accepting, encouraging and praising the ideas of pupils, than the corporation school teachers. But both the categories of teachers are alike in the other classroom behaviour patterns, such as questioning the pupils, responding to the pupils' ideas dominating over their pupils by more teacher talk, permitting pupil talk and pupil initiation in the classroom and teaching content-
There is significant difference (at 0.01 level) between the means of teachers working in Aided and Government Schools with regard to certain teacher behaviour ratios viz., I/D (t = 4.87), TQR 89, (t = 4.08) TTR (t = 2.59) and CCR (t = 9.77). But there is no significant difference between the means of these teachers with regard to TQR, TRR, T/P, PTR and PIR. Teachers of Aided Schools appear to have acquired more in the I/D and TQR 89 ratios and those of Government schools have obtained more scores in the TTR and CCR ratios.

So it is evident that the teachers working in Aided schools are more indirect in the classroom interaction soliciting more pupil participation through constant acceptance, encouraging and praising the ideas of pupils, than their counterparts of Government schools. The Aided school teachers are also more keen in their tendency to respond to pupils with questions based on their own ideas, than Government school teachers. But both these two groups of teachers, are alike in responding to the pupils' ideas, dominating over their pupils, and permitting pupil talk and initiation in the classroom.

There is no significant difference between the means of teachers working in special and Aided schools with regard to I/D, TQR 89, TQR, TRR, TTR, PTR, PIR and CCR, while there is a significant difference (at 0.01 level) between the means of these teachers with regard to T/P (t = 7.68) only.
Hence, it is concluded that the Aided school teachers dominate more over their pupils, than their counterparts in special schools (Matriculation schools, Anglo-Indian schools and schools of the Central Board of Secondary Education), as the former has scored more on T/P than the latter. But both the categories of teachers are similar in the other classroom behaviour patterns, such as, behaving indirectly, questioning and responding to pupils' ideas, more of teacher talk and allowing pupil talk and initiation in the classroom.

There is significant difference between the means of teachers working in special and corporation schools with regard to all ratios, except TRR 89 and CCR which are not significant. All other ratios, viz., I/D, TQR, TRR, T/P, TTR and PTR and PIR are significant at 0.01 level and TQR 89 is significant at 0.05 level. The special school teachers have scored more on I/D, TQR 89, TQR, TRR, PTR & PIR. The corporation school teachers have gained more scores on T/P and TTR.

Therefore, it is evident that special school teachers possess a tendency to accept, encourage and praise the ideas of pupils unlike their counterparts working in corporation schools. They are more ready to respond to pupils with questions based on their own ideas, ask questions when guiding the more content part of the classroom discussion, react to the ideas and feelings
of pupils and allow pupils more freedom to respond and initiate in the classroom discussions, than the teachers of corporation schools.

Teachers belonging to corporation schools dominate more over their pupils within the classroom and also talk more thereby curbing the flow of pupil talk. Both the groups of teachers are alike in integrating pupils' ideas into the class discussion and in concentrating more on the content part.

There is significant difference (at 0.01 level) between the means of teachers working in special and Government schools, with regard to all ratios, viz., I/D, TQR 89, TQR, TRR, T/P, TTR, PTR, PIR and CCR. The special school teachers have scored more on I/D, TQR 89, TQR, TRR, PTR, and PIR. The teachers of Government schools have scored higher on T/P, TTR and CCR.

Hence, it is established that teachers of special schools are having a tendency to accept and encourage pupils' ideas, respond to pupils with questions based on their own ideas, ask questions when guiding the more content part of the classroom discussion, react to the ideas and feelings of pupils and allow the pupils to respond and initiate in the class. And the teachers of Government schools have a tendency to talk more in the class, dominate more over the pupils and concentrate more
It is found that there is significant difference between the means of teachers working in rural and urban and schools, with regard to TRR, T/P, TTR, PTR, PIR and CCR. The urban school teachers have scored more on TRR, PTR, and PIR. The teachers of rural schools have scored higher on T/P, TTR and CCR.

Therefore, it is seen that teachers of urban schools are having a tendency to respond and react to pupils' ideas and also allow the pupils to respond to the classroom situation and initiate their ideas during the interaction. But the teachers of rural schools have a tendency to dominate more over the pupils through their lengthy talks and concentrate only on the content part, never allowing the pupils to express their ideas freely.

There is no significant difference between male and female teachers with regard to the ratios, I/D, TQR 89, TQR, TRR, T/P, TTR, PTR, PIR and CCR.

Hence, it is concluded that there is no significant difference between male and female teachers with regard to the classroom behaviour patterns of influencing the pupils with questions, integrating the pupils' ideas and feelings into the class discussion, asking questions while guiding the content part, reaching to the ideas of pupils,
dominating over the pupils in the classroom, talking more in the class, permitting the pupils to respond and initiate and concentrating more on the content-oriented talk in the classroom.

5.15 Other Findings of the Study:-

i) Most of the teachers are more concerned with the content-oriented part of the classroom discussion.

ii) Interaction patterns of most of the teachers are not flexible and hence pupils' participation in the teaching-learning process in most of the classes are inadequate.

iii) Teachers, generally, are not supportive of encouraging pupils' participation in the classroom discussions.

iv) Most of the teachers are dominating over their pupils in their classroom.

v) Almost all the teachers are direct in their influence patterns.

vi) More than 60% of the time, most of the teachers are talking during the classroom discussions.

vii) Most of the teachers engage themselves in questioning their pupils for longer durations.

viii) Pupil talk and pupil initiation in the classroom discussion are pathetically inadequate. This shows that the teachers do not encourage pupil talk and initiation in the classroom discussions.
ix) The skill of questioning was found to be the highest in the classroom of Aided school teachers while it was the lowest in the classrooms of Government school teachers.

x) The skill of lecturing was found to be the highest in the classrooms of Government school teachers and lowest in the classrooms of special school teachers.

xi) The skill of reinforcement was the highest in the classrooms of special school teachers and lowest in the classrooms of Government school teachers.

xii) In the classrooms of special school teachers, the skill of using pupils' participation was the highest and in the Government school teachers classroom it was found to be the lowest.

xiii) The skill of using the blackboard was the highest in the Aided school teachers' classroom and lowest in the corporation school teachers' classrooms.

xiv) Extended students' response was the highest in special schools and lowest in Government schools.

5.16 CONCLUSIONS:

i) The classroom atmosphere, which is against all sorts of authoritarianism, with little teacher domination, facilitates to develop those creative abilities in pupils, which have been identified as constituting divergent thinking and the main among which are fluency, flexibility, originality and elaboration.
ii) Lack of a high level of psychological safety and a permissive atmosphere for pupils with freedom for self-expression, and more teacher-domination and authoritarianism lead to failure of functioning of the creative faculties of pupils.

iii) Intelligence, Academic Achievement and personality factors of pupils influence better pupil creativity.

iv) The higher the tendency of the teachers to influence the pupils by reducing their tendency to lecture, criticise and direct the pupils and increasing his tendency to ask questions, to initiate and encourage pupil talk and to accept, clarify, praise and develop the ideas and feelings expressed by the pupils, the higher will be the academic achievement of pupils.

v) The high scores of pupils' I.Q., and Academic Achievement influence better pupil creativity.

vi) Pupils who are enterprising, decisive, aggressive, independent, daring and incisive, tend to score high in their I.Q., Creativity and Academic Achievement.

vii) Students of special schools like Anglo-Indian, Matriculation and Central Board are better than their counterparts studying in other types of schools in their I.Q., creativity and Academic Achievement.

viii) Communication patterns of teachers differ according to the management and locality of schools.

ix) Both male and female teachers are alike in their way of teaching in all types of schools.
5.17 Recommendations

i) 'Indirect Influence Patterns' of the teachers' classroom behaviour provide the pupils with a conducive classroom climate which develops the creative thinking of pupils. But the 'Direct Influence Patterns' of the classroom behaviour of teachers curb the flow of creative ideas of the pupils. Hence it is suggested that the teachers should prefer 'Indirect Influence Patterns' to 'Direct Influence Patterns' in their interaction process.

ii) Teachers must lessen their domination in the classroom and allow for more pupil talk.

iii) Pupils' ideas which sprout up on their own initiation should be encouraged and praised which in turn will kindle the spark of creativity.

iv) Teachers should ask more questions and allow more freedom to the students in classroom discussions.

v) Learning by enquiry should be encouraged. Constraints of the classroom should be relaxed.

vi) Children should be afforded with opportunities to exercise their talents.

vii) The faculties of judgement, evaluation, reflective thinking, planning and decision making must be stimulated.
viii) Pupils of pervasive emotionality and frustrated type should be guided properly by teachers.

ix) Teachers should mould pupils in such a way that they develop into daring and independent persons.

x) Pupils should be allowed to shed away their shyness and inhibitions through proper guidance and encouragement by teachers.

xi) It is suggested that teachers should stop directing and criticising the pupils, since it is detrimental to the active participation of pupils in the interaction process. Teachers should also avoid cracking jokes which may hurt the feelings of pupils.

xii) To attract more pupil participation in the classroom interaction, the teacher may, besides usual chalk and talk method, widely use some latest Audio visual Aids such as ACR, VCR and OHP.

xiii) By an appropriate feedback system, the teacher may be conscious of his own weaknesses and this may help him to change his interaction patterns.

xiv) Teachers working in Government Schools, Corporation Schools and Schools situated in rural areas should try to be more flexible in their interaction patterns so as to create creativity in the minds of pupils. Refresher and Orientation courses may be organised very often for these teachers, so that they could be exposed to the new trends in Education.
5.18 Suggestions for further Research

i) The present investigation was attempted within the Coimbatore Educational District. The study may be undertaken in other districts also with a still wider area and larger sample if possible, so that the validity of these findings could further be substantiated.

ii) Some specialised teacher behaviour aspects with reference to various subjects may be taken up for investigation to establish the new relationships and links.

iii) Studies may be undertaken to explore how and to what extent specific teaching behaviours, such as motivating and encouraging pupils to partake in the interaction, etc., are related to the overall teaching effectiveness.

iv) Experimental studies may be carried out to further examine the teacher behaviour with reference to different instructional objectives in a variety of situations.

v) Studies may be undertaken to find out the relationship of positive reinforcement and external rewards with creative learning.

vi) Studies may be attempted which may be useful in developing all faculties of pupils with particular emphasis on imagination, intuition, formation of hypothesis and development of different patterns of thinking.