CHAPTER-IV

ANALYSIS AND INTERPRETATION OF DATA
4.1 CASE STUDY OF INNOVATIVE CBSE SCHOOL

4.1.1 Innovative CBSE School

The Innovative CBSE School is an unaided school affiliated to the Central Board of Secondary Education, New Delhi. This school was started during 1993. It is situated in Kozhikode District, Kerala. The atmosphere is always calm. The scenery all around is such that a child feels free to enjoy the beauty of nature.

This school is a co-educational school providing education from L.K.G. to Standard X. It is like conventional CBSE School selected for this study and majority of children come from Christian families of Kerala. The school stands for academic excellence and development of life skills.

The academic faculty of the school is headed by the Director/Principal who has over 18 years of teaching and administrative experience in various prestigious schools in and outside Kerala as Principal. The methodology, which is following in the school, is fully under the guidance of the Principal.

The Researcher had done an interview with Principal of this school. From that interview the researcher could understand the philosophy behind the school. The school believes that every human being is valuable and that each student should be given the opportunity to work towards his potential as a member of the community. So the students neglected from other schools are given admission here and they try their best to draw the best out of them.

The first duty of the student is to learn. Teachers / schools provide an easy way to make it proper and help the child. It will be easy to climb a mountain if we get help from someone. So here this schools is trying to help the student to make their
study easier. There are individual differences among the students. Some of them should put more effort to reach up to others. They have to work hard according to their ability.

Also they have the opinion that academic achievement is one of the things that adds to the success of life. Besides the academic achievement, the students’ inner abilities also help for success. Each child has an inborn talent and we have to find out that talent and encourage it in that field. So through this way, the child will get success even though his academic achievement is poor. They need minimum knowledge academically and they can progress in life based on their strengths.

4.1.2 Physical Facilities

a. Classroom

The school is a three-storied building and there are 31 rooms in total. In that 18 of them are used as classrooms and two rooms are used as staff rooms, three rooms as office rooms, one room as physical education room. Apart from these there are Principal's room, Vice-principal's room, Library, Computer room, sick room, guest room and Laboratory.

Wooden screens separate the classrooms. There is no complete separation between the classrooms. All the classrooms are reasonably large so that students can sit comfortably. Adequate number of benches and desks are available in each classroom. Each class is provided with good quality black boards. They are using coloured chalks also for teaching.

There are three ventilators in each classroom. In some rooms electric lights are provided. But sufficient amount of natural light is available in each of the classrooms. There are no fans in the classes but they have enough fresh air.
Separate toilets for boys and girls are available. The quality of drinking water is also good.

b. Staff room

There are two staff rooms in total. One for male teachers and another for female teachers. The room is arranged in a circular manner. In each room there are two shelves for keeping the books.

c. Library

There is a good library which has about 3500 books, out of which there are English story books, Encyclopedia, Dictionaries, Malayalam story books & poems, Autobiographies, Comics, Text books, etc.,

There are mainly two sections; loan section and reference section. During the lunchtime and interval time, students are allowed to go to the library for referring the books. Also they are being issued the books for one week from the loan section. Teachers in the schools also use the library. 9th and 10th class students have one day as library day every week. On that day, they are allowed from morning to go the library and refer books and prepare notes. The students are allowed to go the library daily in the afternoon session, after the supervised study. Librarian is there to guide all the students.

d. Laboratory

The school has two laboratories. One room is used for Physics and Chemistry practical works and the other is for Biology practical works.

The laboratory has enough practical items as per the CBSE school curriculum. Simple Pendulum, Voltmeter, Ammeter, Thermometer, Magnets, Copper
block, Aluminium block, Stop watch, maps, glass rods, beakers, test tubes, Burners, Chemicals, Solar cooker which is made by the students, biological specimens, model of skeletal system etc.

Three tables kept in the laboratory to do the practical work. Students are divided into groups according to the instruction given by the teacher; they are supposed to do the work.

e. Play ground

The school has a play ground within the school campus. Due to the difference in the timetable of the school, three different classes are combined together for the physical education class and lack of physical facilities do allow them to play different games at a time.

There is a separate room for keeping the sports materials. In that room they have kept skipping rope, foot ball, volley ball, shuttle and bats, shot put, disc, javelin, high-jump stand, chess board, snake and ladder, judo etc.

During rainy season students are given theory classes on physical education. They are allowed to play indoor games also.

4.1.3 Educational facilities

a. Teachers

The minimum qualification of the teachers in this school is B.A / B.Sc + B.Ed. Out of 34 teachers 13 of them are postgraduate and others have graduation only. The teachers don't have any research background and many of the teachers are new to the teaching and eight of them have experience from other schools.
The Principal who initiates the new methodology gives training to the teachers for one week. This will be an orientation programme to the new methods. Within the first one week experience, the teachers get the idea of new methodology. Principal conducts staff meeting once in a month. That time the teachers gets the opportunities to express their problems in teaching and Principal will give suggestions to solve or improve that problem. During the summer vacation, the staff members meet together and discuss about their methods and future plans.

b. Pupil-Teacher Ratio

The total number of students at present is 598 and there are 34 teachers. In this school, each teacher meets all the children of the school. Thus the ratio is 1:18.

c. Pupil-Section Ratio

In this school, there are 18 classrooms. The numbers of students in each section are given below.
Table 4.1: The Number of Students in the Innovative CBSE School in each Section

<table>
<thead>
<tr>
<th>Class</th>
<th>No. Of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>I A</td>
<td>40</td>
</tr>
<tr>
<td>I B</td>
<td>40</td>
</tr>
<tr>
<td>I C</td>
<td>41</td>
</tr>
<tr>
<td>II A</td>
<td>49</td>
</tr>
<tr>
<td>II B</td>
<td>49</td>
</tr>
<tr>
<td>III A</td>
<td>36</td>
</tr>
<tr>
<td>III B</td>
<td>34</td>
</tr>
<tr>
<td>IV A</td>
<td>29</td>
</tr>
<tr>
<td>IV B</td>
<td>30</td>
</tr>
<tr>
<td>V A</td>
<td>28</td>
</tr>
<tr>
<td>V B</td>
<td>29</td>
</tr>
<tr>
<td>VI A</td>
<td>27</td>
</tr>
<tr>
<td>VI B</td>
<td>26</td>
</tr>
<tr>
<td>VII A</td>
<td>24</td>
</tr>
<tr>
<td>VII B</td>
<td>22</td>
</tr>
<tr>
<td>VIII</td>
<td>31</td>
</tr>
<tr>
<td>IX</td>
<td>32</td>
</tr>
<tr>
<td>X</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>598</td>
</tr>
</tbody>
</table>

Thus, the pupil section ratio is 1:33.

d. Method of Teaching

The content of the study is the same as prescribed by the CBSE curriculum in the school. But the teaching-learning process is innovative in nature in order to meet the individual difference.
There are eight departments in which each department has a minimum of four teachers and one of them as head of the department. The Principal gives directions to the heads and they monitor the teaching-learning process. The eight departments are English, Malayalam, Hindi, General science, Social science, Mathematics, Computer science and Physical education & Arts.

The timetable followed by the school is different.

Table 4.2: The Time Table that Followed in the Innovative CBSE School for a Day

<table>
<thead>
<tr>
<th>Time</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.45 A.M -10.30 A.M</td>
<td>Subject class – I</td>
</tr>
<tr>
<td>10.30 A.M -11.15 A.M</td>
<td>Subject class – II</td>
</tr>
<tr>
<td>11.15 A.M -11.30 A.M</td>
<td>Interval</td>
</tr>
<tr>
<td>11.30 A.M -12.15 P.M</td>
<td>Subject class – III / Co-curricular activities.</td>
</tr>
<tr>
<td>12.15 P.M - 1.00 P.M</td>
<td>Subject class –III / Co-curricular activities</td>
</tr>
<tr>
<td>1.00 P.M - 1.45 P.M</td>
<td>Lunch break.</td>
</tr>
<tr>
<td>1.45 P.M - 2.15 P.M</td>
<td>Special English class.</td>
</tr>
<tr>
<td>2.15 P.M – 3.00 P.M</td>
<td>Supervised study</td>
</tr>
<tr>
<td>3.00 P.M - 3.05 P.M</td>
<td>Interval.</td>
</tr>
<tr>
<td>3.05 P.M - 3.55 P.M</td>
<td>Supervised study.</td>
</tr>
<tr>
<td>4.00 P.M</td>
<td>School prayer and National Anthem.</td>
</tr>
</tbody>
</table>

As given in the above table, 9.30 A.M to 9.45 A.M there is school prayer and the class teacher has to take the attendance of the students in the class. In this school,
the main feature is that in a day for a particular class, the first 3 periods in the
forenoon session are used for teaching the same subject. For example, in class IX the
subject dealt in the first period is English. Then the next day a new subject
(Malayalam, Mathematics etc) will be dealt alternatively. The three periods are
engaged by three teachers. The two subjects are from 9.45 A.M. to 10.30 A.M and
10.30 A.M to 11.15 A.M. There is 15 minutes interval for the students after the 2
subject classes. From 11.30-12.15 and 12.15-1.00 P.M according to the convenience
of other classes there is subject class or co-curricular activities. i.e., If the class IX
has subject class from 12.15-1.00 P.M then co-curricular activities will be from 11.30
to 12.15 and vice versa. There is lunch break from 1.00 P.M to 1.45 P.M.

The afternoon session begins with the special English class for 45 minutes.
After this English class, the important factor of the school, i.e., the supervised study
starts. From 2.15 P.M to 3.55 P.M there is supervised study. In between they have 5
minutes interval. At 4'0 clock the schedule of the school ends with school prayer and
National Anthem.

e. Teaching Aids

The teachers were interested to make the teaching aids. They used to bring
materials available from their home and use it for teaching purpose. The students are
asked to prepare some learning aids and it is also kept in the laboratory or staff room.

f. Supervised Study

The morning session is teacher oriented, while, the afternoon session is child
oriented. The afternoon session is meant for supervised study. During this period the
three teachers, who have taught in the morning session, go together to the same class.
They give special attention to the individual to clear the doubts that they taught in the
morning class and help them to master the topic. The teachers give notes also at this
time. If they have to teach it second time, the teachers are ready for that also.

In the supervised study session, the weak students will be seated in the front
bench and teacher will take care of them intensely. The teachers clear the doubts of a
particular student without disturbing other student. If the doubt is common, then the
teacher explains it to the whole class. Teachers will correct the note books during this
time. Teachers concerned with co-curricular activities also go to the supervised study
class to help other teachers in correcting the notes.

Bright students, who are able to master the topic within this time, are allowed
to go the library for reading books. But usually the students may not be able to
complete their notes preparation within this time.

The advantages of the supervised study are:

- There is no home works and assignments for the children. They can devote time
  for playing and also on development of other hobbies.
- They are free for doing creative activities.
- Children are more free and enjoy participating with teachers.
- Children love coming school as they get homely treatment based on individual
  attention by the teacher..
- Teachers do not give punishment to them.
- All teachers know each student by their plus and minus behaviours.

The student who is absent for one day have the opportunity to learn the subject
within one week. In each class, for each subject there is a subject expert. The child
may ask the portion which he has left, to the subject expert. If he is not satisfied with that, he may seek the help of the teacher.

g. Special English Class

Everyday from 1.45 to 2.15 P.M there is a period for general / special English class. The students are divided into three groups.

- Classes I to III - I group
- Classes IV to VI – II group
- Classes VII to VIII – III group
- Classes IX to X - IV group

The main emphasis is given for developing the skills in spoken English. This class is handle by 4 teachers of the English department.

The focus here is on;

- Phonetics
- Basic grammar
- New words to make good vocabulary
- Adjectives
- New innovations- General Knowledge
- Spoken English
- Good manners which should follow in the day-to-day life

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h. Physical Education

In every week there are two periods for physical education class for the students up to class VIII and for IX and X there is only one period per week. In the physical education class usually three classes are combined together and the class is taken together. For the first 10 minutes the students have to do some exercises according to the instructions given by their teachers. After that the students get the opportunity to play the games as per the teachers’ instructions.

During the rainy season, the teacher gives the theory classes and allows to play indoor games. In the present year, the teacher has given practice to the students before the sports day during the evening. At that time the teacher has given special coaching to them according to their interest.

The researcher has interviewed the physical education teacher. According to the opinion of physical education teacher the students in the school are take active part in physical education class, as physical education is considered equally important for girls.

i. Art Education

The main aim of this class is to give awareness about all arts to the students. Here the teacher is not making everyone an artist. But they are helping the students to enjoy different forms of arts. According to the student’s ability area of interest students are allowed to choose the work. The teacher does not compel any one to do the work.
Different forms of arts offered include;

- I - V class - painting and drawing
- VI - VIII class - watercolour, collage making, debate, creative speech, drama, music, dance, etc.
- IX - X class - creative writing, speech, etc., and they have to prepare records.

From the 6th class onwards, teacher gives the theory class of painting, collage making etc. For the creative speech class, teacher gives a topic to the students. The interested students are allowed to tell the points and teacher will help the students. Those who are interested to write about that topic can write that with the help of discussed points. Through this the students’ ability in creative speech and writing increases.

The record of art education include visual arts, performance arts, creative writing and speech. Teacher helps the students to write the poems and stories and also encourage them to send that to outside publication, periodicals and magazines. The teachers usually ask them to read other books to increase their reading habits.

j. Computer Education

There is a computer laboratory with 13 computers. There are three teachers in the computer laboratory. They give theory classes as well as practical classes. Each child gets the opportunity to use the computer. For the weak students, the teacher gives special training in the noontime.
The Computer class provides awareness and exposure to different application software such as Fundamentals and typing, Logo, Windows, Programming-basics, Word processing package, Excel, Power point, Data base, Access and Visual basic.

k. Pupil's Participation

Almost all children were interested in discussions in the classroom. Without any hesitation children ask questions to their teachers.

The researcher observed that the quality of pupil's interaction with the teachers is very high. The students do not have fear to approach their teachers since the teachers are providing enough freedom, students are ready to ask any doubts to teachers.

In the supervised study session, the students were totally participating in the learning process. Most of the students are interested to sit in the front bench itself. To sit in front benches students do not hesitate bringing pressure/request from their parents.

I. Evaluation and Assessment of Students

According to the Principal of this school, the usual way of two hour examination system is not a scientific one. The child who is not well on that particular day would not be able to write the examination.

Initially the school conducted an experiment in which they had given questions to the students before one week of examination. They found that many of the students had still failed.

Now they have changed the system. One whole week is given for revising one subject. They will conduct examination at the end of that week i.e. Friday or
Saturday. They can take rest for one day and again Monday onwards they will start the next subject. During the revision class, the teacher teaches the lesson once again, if required. Everybody is happy about this new method.

On the day of examination, the morning session will be supervised study and the afternoon session will be the examination. In a year the evaluation done through six examinations, i.e., three terminal and three mid terminal examinations.

**m. Parent Teacher Association**

The parents are very much interested to send their children to this school. Through PTA the Principal oriented the parents about the innovative approach in curriculum transaction. The Principal used to arrange PTA meeting once in a month and he would give suggestions for them to improve their student's academic achievement. The teachers get the opportunity to discuss the problems about the students in the meeting where even parents also could give the suggestions. The parents would get an opportunity to meet all teachers in the school.

**4.1.4 Conclusion**

From the study of the institutional profile of the innovative CBSE school the investigator found that the philosophy that is followed in this school helps in tension free environment for students. The teaching learning environment has innovativeness in terms of their timetable, supervised study and method of teaching.
4.2 CASE STUDY OF CONVENTIONAL CBSE SCHOOL

4.2.1 Conventional CBSE School

The Conventional CBSE school, is in Malappuram District in Kerala. It was founded in 1987 follows the CBSE syllabus. This is a co-educational school providing education from LKG. to tenth standard. One of the major aims of the school is to lay a sound foundation of education in all children admitted in this school irrespective of religion, race and language. It ensures conducive for all round development of each pupil. The principal, a retired Assistant Education Officer from Malappuram, heads the academic faculty of the school.

4.2.2 Physical Facilities

a. Classroom

The building is 3 storied with a total of 18 rooms of which 12 are used as classrooms. All the rooms are well ventilated with sufficient passage of light and air. A wall separates the rooms. Good quality black boards are provided in each classroom. The classrooms are spacious enough and contain ample furniture.

There are separate toilet facilities for boys and girls. Good drinking water is also available.

b. Staff room

The room allotted for the staff is small compared to the classroom and contain average facilities. There are three shelves, which are shared by the teachers. The
tables and chairs are arranged in a circular manner. The room, being small appears to be slightly congested.

c. Library

The library does not function in a satisfactory manner. Seating arrangements for reading is meager. Students are provided accessibility to the library only once a week. Around 1600 books and 5 newspapers, three of them in the regional language and two in English, namely ‘The Hindu’ and ‘The Indian Express’ are available. Their respective class teachers allot the books to the students.

d. Laboratory

The laboratory consists of a single room with practical items for physics, chemistry and biology, arranged in 3 different shelves. Only students of tenth standard perform practical experiments in the laboratory. Science exhibition of various scientific experiments, projects, different working models and still models are conducted every year in the school.

g. Play ground

The school has a fairly large playground. However, very little importance is attached to sports. The school lacks a sports teacher.

4.2.3 Educational Facilities

a. Teachers

There are 16 teachers working in the school including the Principal. The minimum qualification of the teachers in this school is B.A / B.Sc +B.Ed. Out of the
16 teachers, two are postgraduates. Three of them have experience of teaching in schools outside Kerala. Five of them are totally new to the teaching profession. The remaining 8 teachers have experience of teaching in other schools in Kerala.

b. Pupil-Teacher Ratio

The total number of students at present is 382 and there are 16 teachers. In this school each teacher meets all the children of the school. Thus the ratio is 1:24

c. Pupil-Section Ratio

In this school, there are 12 class rooms. The number of students in each sections are given below:

Table 4.3 The Number of Students in the Conventional CBSE School in each Section.

<table>
<thead>
<tr>
<th>Class</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
<th>X</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of students</td>
<td>40</td>
<td>42</td>
<td>39</td>
<td>45</td>
<td>33</td>
<td>36</td>
<td>37</td>
<td>39</td>
<td>38</td>
<td>33</td>
<td>382</td>
</tr>
</tbody>
</table>

Thus, the pupil section ratio is 1:38

d. Method of Teaching

The school follows the CBSE syllabus. The method of teaching is same as other CBSE schools. The timetable followed is the traditional one. The study of a day is divided into 7 periods of 45 minutes each. Teachers make use of the prescribed textbooks in taking class.
e. Teaching Aids

The teachers of this school use teaching aids very rarely. The teachers themselves prepare some of them. The students prepare other teaching aids that are used as part of their project.

f. Supervised Study

In this school there is no provision for supervised study.

g. Co-curricular Activities / Art Education.

Developing of literary talents, abilities in music, painting and drawing and other artistic skills like flower arrangement, clay modeling, etc. are given importance in the school. Competition in these items is arranged and students are encouraged to come up with the best performance.

h. Computer Education

The school has a computer laboratory with 3 computers. There is only one computer teacher for theory as well as practical classes. Student start operating computer from 3rd standard onwards. The students of 7th standard are taught power point presentation. Two periods are allotted in a week for computer study.

i. Evaluation and Assessment of Students

The school conducts a total of three examinations, in an academic year apart from the regular class tests conducted by the respective teachers ie. 2 terminal examinations and final examination. Towards the end of the academic year revision of each subject is done at regular intervals under the supervision of the respective
teacher. In this school, examination is conducted in the usual way. In the terminal examination the examination of two subjects are conducted each day, allotting two hours for each. From an open talk with the pupils, it was found that they have fear of examination.

**j. Parent Teacher Association.**

Around 60% of the students of this school belong to the above socio-economic status and the rest come under the below average group. The PTA general body meeting is conducted once in a year where by parents and teachers make an open and personal discussion about each child. Suggestions or steps for academic improvement of each child are exchanged between the parents and teachers. The PTA meeting of the executive body is arranged once in a month for discussion on matters of administrative levels, public opinion, etc.

**4.2.4 Conclusion**

From the study of the institutional profile of the conventional CBSE school the investigator found that the method of teaching, evaluation system, co-curricular activities, the timetable followed and other physical facilities are same as other CBSE schools.
4.3 COMPARISON OF INNOVATIVE CBSE SCHOOL WITH CONVENTIONAL CBSE SCHOOL

4.3.1 Comparison on Qualitative aspects

This section analyzes the institutional profile of the innovative CBSE school with conventional CBSE school with an objective of finding the various practices followed in the innovative CBSE school.

3.2.0.0 Philosophy and Objectives of the School

The innovative CBSE syllabus school have a unique philosophy in the approach of curriculum transaction where as the conventional state school has no such philosophy of their own apart from the regular governmental policies. The innovative CBSE school believes that every human being is valuable and that each student should be given the opportunity to work towards his/her potentials for better growth and development of the individual as well as of the community, as this school offer education to all and they try their best to draw the best out of them.

4.3.1.2 Infrastructure and Physical Facilities

A comparison of physical facilities available in the innovative CBSE school with the conventional CBSE school, indicates that there was not much difference observed between these two schools. In both the schools there were sufficient number of class rooms and the facilities given in each classroom was found to be the same. With regard to the laboratory, library and play ground there was a slight difference between the two. In the innovative CBSE school the number of books in the library and the equipments available in the laboratory are better than the conventional school.
Thus, with respect to the physical facilities there is not much of a difference between both the schools except freedom to utilize and functionalities of equipments are better with innovative school.

3.2.0.2 Educational Facilities

a. Teachers

The researcher could found that in the comparison of qualifications of teachers and their professional growth, there was no difference found in both schools, but in the innovative CBSE school, they regular have staff meetings and the Principal consistently was found to be highly conscious of achieving the target laid for innovative approach. Such a practice was not their in the conventional CBSE school.

b. Teacher - Pupil Ratio

In spite teachers and students ratio being equal, teachers were observed to be more serious for helping each student to overcome learning difficulties.

c. Pupil-Section Ratio

While comparing the pupil-section ratio there is not much of a perceptible difference between the two schools.

d. Teaching - Learning Environment

Even though both schools use CBSE curriculum, the teaching learning process in innovative school is different from the conventional school. The timetable designed in the innovative school is unique and only one subject is being taught in a day. In the innovative CBSE school there is provision for supervised study where in teacher helps
each student in finding solutions to the difficulties faced by them. There is ground rapport between students and teachers in comparison to conventional school.

With regard to the physical education class the investigator observed that in the conventional school they didn’t lay much importance to the physical education classes whereas the students in the innovative CBSE school were more actively participating in physical education classes including girls students.

In the case of arts education, there is a difference between these schools. In the innovative CBSE school, the main aim of this class is to give awareness about all arts to the students. Here the teacher tries to make students understand the importance of various arts in life and also try to identify the talent of the children on the basis of their interest and performance in these areas. Such an attitude was not observed in conventional school. Same thing was observed for computer education also.

In the innovative CBSE school they were given no homework to students. They have all freedom for doing activities of their interest, while the conventional CBSE school students were given a lot of home works.

With regard to examination procedure, it is same in both the schools, while the preparation for examination is different in the innovative CBSE school. In the innovative CBSE school it was told that the students preparation of their exam based on their self study and group discussion on all the learning difficulties have been discussed in supervised study time. In innovative school, students get one week revision for each subject followed by examination and thus they will get one week gap in between each subject. But in case of conventional CBSE school there was continuous examination in a week. This suggests that the students in the innovative CBSE school get more time for self study and preparation is made on students
understanding. The students were found less tensed and worried but some of the students are bored with the long duration of examination.

From the above all description it is evident that the teaching-learning environment has a novelty in the innovative CBSE school as compared to the conventional CBSE school. The teachers in the innovative CBSE school also have much interest in the new approach of curriculum transaction and assessment procedures. Students are also seen interested to go to the school as they enjoyed learning and participation in academic activities. Some teachers pointed out that students were getting bored with the timetable followed for examination. As stated earlier, students have found to have the opinion that instead of one subject a day, two or three subjects can be considered.

4.3.1.4 Innovative Practices Followed in the Innovative CBSE school

On the comparison of institutional profiles of the innovative CBSE school and the conventional CBSE school based on the interviews with the Principal, teachers and students, the investigator could found that the following are the innovative practices followed in the innovative CBSE school.

4. The school create a tension free environment for students. So they love to come to the school.

5. The timetable designed in the school is unique. Three different teachers on the same subject are teaching only one subject every day in the morning section.

6. The school provide supervised study in the afternoon section. During this period the three teachers, who have taught in the morning section, go together to the same class. They give special attention to the individual to clear the
doubts that they taught in the morning class and help them to overcome their learning difficulties.

0. With regard to their examination and revision, the students get one week revision for each subject followed by examination and thus they will get one week gap in between each subject.

0. Students are not given any homework and are encouraged to do activities of their own interest and choice. They have freedom to go according to their interest and hobbies.

The effect of the above mentioned innovative practices followed in the innovative CBSE school on the academic achievement and life skills i.e., communication skills, creative thinking and interpersonal relationship of students were analysed quantitatively and are presented in the next section of this chapter.
4.3.2 Comparison on Quantitative Aspects

This section presents the comparison of Innovative CBSE School with Conventional CBSE School on the various dimensions of Life skills i.e. creative thinking, interpersonal relationship and communication skills and the academic achievement of the students quantitatively.

4.3.2.1 Verification of Hypothesis Related to Creative Thinking

Hypothesis 1.0.1

There is no significant effect of innovative practices on the creative thinking of students from innovative CBSE school and students from conventional CBSE School.

To test the above hypothesis t-test has been done. The results of the analysis are given in the table below:

Table 4.4: Comparison of students of innovative CBSE school and conventional CBSE school on creative thinking.

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-ratio</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative</td>
<td>46</td>
<td>149.98</td>
<td>38.21</td>
<td>0.621</td>
<td>0.537</td>
</tr>
<tr>
<td>CBSE School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conventional</td>
<td>37</td>
<td>144.16</td>
<td>47.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBSE School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The t-value is not significant for the CBSE schools, which indicated that there is no significant effect of innovative practices on the creative thinking of students from innovative CBSE school and students from conventional CBSE school. Hence null hypothesis is accepted.

This shows that the innovative practices followed in the innovative CBSE school, has no effect on the creative thinking of the students.

**Hypothesis 1.1.1**

There is no significant effect of innovative practices on the verbal creative thinking of students from innovative CBSE school and students from conventional CBSE school.

To test the above hypothesis t-test has been done. The results of the analysis are given in the table below:
Table 4.5: Comparison of students of innovative CBSE school and conventional CBSE school on verbal creative thinking along with the three dimensions.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-ratio</th>
<th>Level of significance (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency (Verbal)</td>
<td>Innovative CBSE School</td>
<td>46</td>
<td>36.17</td>
<td>9.49</td>
<td>-0.898</td>
<td>0.372</td>
</tr>
<tr>
<td></td>
<td>Conventional CBSE School</td>
<td>37</td>
<td>38.38</td>
<td>12.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexibility (Verbal)</td>
<td>Innovative CBSE School</td>
<td>46</td>
<td>23.72</td>
<td>4.44</td>
<td>-0.557</td>
<td>0.877</td>
</tr>
<tr>
<td></td>
<td>Conventional CBSE School</td>
<td>37</td>
<td>24.42</td>
<td>7.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Originality (Verbal)</td>
<td>Innovative CBSE School</td>
<td>46</td>
<td>32.85</td>
<td>23.33</td>
<td>0.465</td>
<td>0.643</td>
</tr>
<tr>
<td></td>
<td>Conventional CBSE School</td>
<td>37</td>
<td>30.41</td>
<td>24.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal Creative Thinking</td>
<td>Innovative CBSE School</td>
<td>46</td>
<td>92.74</td>
<td>34.01</td>
<td>-0.058</td>
<td>0.954</td>
</tr>
<tr>
<td></td>
<td>Conventional CBSE School</td>
<td>37</td>
<td>93.22</td>
<td>41.36</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The t-value for the total verbal creative thinking are not significant for the innovative CBSE schools which indicated that there is no significant effect of innovative practices on the verbal creative thinking and its dimensions of students from innovative CBSE school and students from conventional CBSE school. Hence the null hypothesis is accepted.

This shows that the innovative practices followed in the innovative CBSE school has no effect on the verbal creative thinking of the students.

To test the significance of the mean difference for all the dimensions of verbal creative thinking, the investigator set up the sub hypotheses for each dimensions.

Sub Hypothesis 1.1.1

There is no significant effect of innovative practices on the fluency of verbal creative thinking of students from innovative CBSE school and students from conventional CBSE school.

The t-value for fluency of verbal creative thinking is not significant for the innovative CBSE schools, which indicated that there is significant effect of innovative practices on the fluency of verbal creative thinking of students from innovative CBSE school and students from conventional CBSE school. Hence null hypothesis is accepted.

This shows that the innovative practices followed in the innovative CBSE School, has no significant effect on the fluency of verbal creative thinking of the students.
**Sub Hypothesis 1.2.1**

There is no significant effect of innovative practices on the flexibility of verbal creative thinking of students from innovative CBSE school and students from conventional CBSE school.

The t-value for flexibility of verbal creative thinking is not significant for the Innovative CBSE schools, which indicated that there is no significant effect of innovative practices on the flexibility of verbal creative thinking of students from innovative CBSE school and students from conventional CBSE school. Hence null hypothesis is accepted.

This shows that the innovative practices followed in the innovative CBSE school, has no significant effect on the flexibility of verbal creative thinking of the students.

**Sub Hypothesis 1.3.1**

There is no significant effect of innovative practices on the originality of verbal creative thinking of students from innovative CBSE school and students from conventional CBSE school.

The t-value for originality of verbal creative thinking is not significant for the Innovative CBSE schools, which indicated that there is no significant effect of innovative practices on the originality of verbal creative thinking of students from innovative CBSE school and students from conventional CBSE school. Hence null hypothesis is accepted.
This shows that the innovative practices followed in the innovative CBSE school, has no significant effect on the originality of verbal creative thinking of the students.

**Hypothesis 1.2.1**

There is no significant effect of innovative practices on the non-verbal creative thinking of students from innovative CBSE school and students from conventional CBSE school.

To test the above hypothesis t-test has been done. The results of the analysis are given in the table below:
Table 4.6: Comparison of students of innovative CBSE school and conventional CBSE school on non-verbal creative thinking and along with two dimensions.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-ratio</th>
<th>Level of significance (2 - tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Innovative CBSE School</td>
<td>46</td>
<td>29.89</td>
<td>9.19</td>
<td>0.636</td>
<td>0.527</td>
</tr>
<tr>
<td>Originality (Non Verbal)</td>
<td>Conventional CBSE School</td>
<td>37</td>
<td>28.49</td>
<td>10.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Innovative CBSE School</td>
<td>46</td>
<td>27.35</td>
<td>6.32</td>
<td>3.736</td>
<td>0.000</td>
</tr>
<tr>
<td>Elaboration (Non Verbal)</td>
<td>Conventional CBSE School</td>
<td>37</td>
<td>22.46</td>
<td>5.39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non Verbal Creative Thinking</td>
<td>Innovative CBSE School</td>
<td>46</td>
<td>57.24</td>
<td>12.70</td>
<td>2.100</td>
<td>0.039</td>
</tr>
<tr>
<td></td>
<td>Conventional CBSE School</td>
<td>37</td>
<td>50.95</td>
<td>14.58</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The t-value is significant (t=0.039, p<0.05) for the CBSE schools, which indicated that there is significant effect of innovative practices on the non-verbal creative thinking of students from innovative CBSE school and students from conventional CBSE school. Hence null hypothesis is rejected.

This shows that the innovative practices followed in the innovative CBSE school, has significant effect on the non-verbal creative thinking of the students.

To test the significance of the mean difference for all the dimensions of non-verbal creative thinking, the investigator set up the sub hypotheses for each dimensions.

Sub Hypothesis 1.4.1

There is no significant effect of innovative practices on the originality of non-verbal creative thinking of students from innovative CBSE school and students from conventional CBSE school.

The t-value is not significant for the CBSE schools, which indicated that there is no significant effect of innovative practices on the originality of non-verbal creative thinking of students from innovative CBSE school and students from conventional CBSE school. Hence null hypothesis is accepted.

This shows that the innovative practices followed in the innovative CBSE School, has no effect on the originality of non-verbal creative thinking of the students.
Sub Hypothesis 1.5.1.

There is no significant effect of innovative practices on the elaboration of non-verbal creative thinking of students from innovative CBSE school and students from conventional CBSE school.

The t-value is highly significant for the CBSE schools, which indicated that there is significant effect of innovative practices on the elaboration of non-verbal creative thinking of students from innovative CBSE school and students from conventional CBSE school. Hence null hypothesis is rejected.

This shows that the innovative practices followed in the innovative CBSE school, has significant effect on the elaboration of non-verbal creative thinking of the students.

4.3.2.2. Verification of hypothesis related to Interpersonal Relationship

Hypothesis 2.1.1

There is no significant effect of innovative practices on the inter-personal relationship among classmates of innovative CBSE school students and conventional CBSE school students.

To test the above hypothesis t-test has been done. The results of the analysis are given in the table below:
Table 4.7: Comparisons of students of innovative CBSE school and conventional CBSE school on interpersonal relationship of classmates.

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-ratio</th>
<th>Level of significance (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE School</td>
<td>46</td>
<td>3.0121</td>
<td>0.3320</td>
<td>-4.626</td>
<td>0.000</td>
</tr>
<tr>
<td>Conventional CBSE School</td>
<td>37</td>
<td>3.3353</td>
<td>0.2957</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The t-value ($t = -4.626$) is negative (negative correlation) i.e. the mean score of interpersonal relationship of innovative CBSE school is less than that of conventional CBSE school and is significant for the conventional CBSE school.

This indicates that there is negative effect of innovative practices on the interpersonal relationship of classmates of innovative CBSE School in comparison with conventional CBSE School. Hence null hypothesis is rejected.

This shows that the innovative practices followed in the innovative CBSE school, has negative effect on the interpersonal relationship of the classmates.

To test the significance of the mean difference for the dimensions of interpersonal relationship, the investigator set up the sub hypotheses for each dimensions.
Sub Hypothesis 2.1.1

There is no significant effect of innovative practices on the interpersonal relationship among same gender classmates of the innovative CBSE school and conventional CBSE school students

Table 4.8: Comparison of students of innovative CBSE school and conventional CBSE school on interpersonal relationship among same gender classmates.

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-ratio</th>
<th>Level of significance (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE School</td>
<td>46</td>
<td>3.8717</td>
<td>0.3998</td>
<td>-4.536</td>
<td>0.000</td>
</tr>
<tr>
<td>Conventional CBSE School</td>
<td>37</td>
<td>4.2262</td>
<td>0.2863</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The t-value (t= -4.536) is negative (negative correlation) i.e. the mean score of interpersonal relationship of innovative CBSE school is less than that of conventional CBSE school and is significant for the conventional CBSE school. This indicates that there is negative effect of innovative practices on the interpersonal relationship among the same gender classmates of innovative CBSE School with conventional CBSE School and hence null hypothesis is rejected.

This shows that the innovative practices followed in the innovative CBSE School, has negative effect on the interpersonal relationship among the same gender classmates.
Sub Hypothesis 2.2.1

There is no significant effect of innovative practices on the interpersonal relationship among opposite gender classmates of the innovative CBSE school and conventional CBSE school students.

Table 4.9: Comparison of students of innovative CBSE school and conventional CBSE school on interpersonal relationship among opposite gender classmates.

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-ratio</th>
<th>Level of significance (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE School</td>
<td>46</td>
<td>2.1524</td>
<td>0.5800</td>
<td>-2.448</td>
<td>0.017</td>
</tr>
<tr>
<td>Conventional CBSE School</td>
<td>37</td>
<td>2.4443</td>
<td>0.4855</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The t-value ($t= -2.448$) is negative (negative correlation) i.e. the mean score of interpersonal relationship of innovative CBSE School is less than that of conventional CBSE school and is significant for the conventional CBSE school. This indicates that there is negative effect of innovative practices on the interpersonal relationship among the opposite gender classmates of innovative CBSE school and conventional CBSE school. Hence null hypothesis is rejected.

This shows that the innovative practices followed in the innovative CBSE school, has negative effect on the interpersonal relationship among the opposite gender classmates.
Hypothesis 2.2.1

There is no significant effect of innovative practices on the interpersonal relationship of students with teachers of the innovative CBSE school students with conventional CBSE school students.

To test the above hypothesis ANOVA has been done. The results of the analysis are given in the table below.

Table 4.10: Descriptive statistics of mean on interpersonal relationship of students with teachers

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE</td>
<td>20</td>
<td>4.0909</td>
<td>9.49</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>14</td>
<td>3.9573</td>
<td>12.87</td>
</tr>
<tr>
<td>Innovative State</td>
<td>14</td>
<td>3.8098</td>
<td>9.63</td>
</tr>
<tr>
<td>Conventional State</td>
<td>9</td>
<td>3.9322</td>
<td>7.87</td>
</tr>
<tr>
<td>Total</td>
<td>57</td>
<td>3.9640</td>
<td>15.25</td>
</tr>
</tbody>
</table>

It is observed that the mean score for teachers in the Innovative CBSE School is the highest.

To test the above hypothesis the one-way Analysis of Variance (ANOVA) is used. The summary of ANOVA table is shown below.
Table 4.11: ANOVA table for mean on interpersonal relationship of students with teachers

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>0.665</td>
<td>4</td>
<td>0.222</td>
<td>1.119</td>
<td>0.350</td>
</tr>
<tr>
<td>Within Groups</td>
<td>10.493</td>
<td>149</td>
<td>0.198</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11.158</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The findings in the ANOVA Tests in the above table reveal that F value was found to be not significant for the innovative CBSE school students when compared to other four schools. Thus the null hypothesis is accepted.

To test the significance of the mean difference for interpersonal relationship of students with teachers the investigator set up the null hypothesis:

There is no significant effect of innovative practices on the interpersonal relationship of students with teachers of the innovative CBSE school students with conventional CBSE school students.
4.3.2.3. Verification of hypothesis related to Communication skills.

Hypothesis 3.1.2.

There is no significant effect of innovative practices on the communication skills of innovative state school students with conventional state school students.

To test the above hypothesis t-test has been done. The results of the analysis are given in the table below.

Table 4.12: Comparison of Students of Innovative CBSE School and Conventional CBSE School on Communication Skills.

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-ratio</th>
<th>Level of significance (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE School</td>
<td>46</td>
<td>53.435</td>
<td>6.428</td>
<td>-1.849</td>
<td>0.068</td>
</tr>
<tr>
<td>Conventional CBSE School</td>
<td>37</td>
<td>56.08</td>
<td>6.546</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The t-value is not significant for the CBSE schools, which indicated that there is no significant effect of innovative practices on the communication skills of innovative CBSE school students with conventional CBSE school students and hence null hypothesis is accepted.

This shows that the innovative practices followed in the innovative CBSE School, has no effect on the communication skills of the students.
4.3.2.4 Verification of hypothesis related to Academic Achievement

Hypothesis 4.1.2.

There is no significant effect of innovative practices on the communication skills of students from innovative CBSE school and students from conventional CBSE school.

To test the above hypothesis t-test has been done. The results of the analysis are given in the table below:

Table 4.13: Comparison of students of innovative CBSE school and conventional CBSE school on academic achievement

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-ratio</th>
<th>Level of significance (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE School</td>
<td>46</td>
<td>64.96</td>
<td>16.744</td>
<td>1.137</td>
<td>0.259</td>
</tr>
<tr>
<td>Conventional CBSE School</td>
<td>37</td>
<td>60.92</td>
<td>15.201</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The t-value is not significant for the CBSE schools, which indicated that there is no significant effect of innovative practices on the academic achievement of innovative CBSE school students with conventional CBSE school students and hence the null hypothesis is accepted.

This shows that the innovative practices followed in the innovative CBSE School, has no effect on the academic achievement of the students.
4.3.2.5 Findings of the Study

On the comparison of innovative CBSE school and the conventional CBSE school following are the major findings.

Innovative practices and creative thinking

1. The innovative practices followed in the innovative CBSE School, has no effect on the creative thinking of the students.

2. The innovative practices followed in the innovative CBSE School has no effect on the verbal creative thinking of the students.

3. The innovative practices followed in the innovative CBSE School, has significant effect on the fluency of verbal creative thinking of the students.

4. The innovative practices followed in the innovative CBSE School, has significant effect on the flexibility of verbal creative thinking of the students.

5. The innovative practices followed in the innovative CBSE School, has no significant effect on the originality of verbal creative thinking of the students.

6. The innovative practices followed in the innovative CBSE School, has significant effect on the non-verbal creative thinking of the students.

7. The innovative practices followed in the innovative CBSE School, has no effect on the originality of non-verbal creative thinking of the students.

8. The innovative practices followed in the innovative CBSE School, has significant effect on the elaboration of non-verbal creative thinking of the students.
Innovative Practices and Interpersonal Relationship

9. The innovative practices followed in the innovative CBSE School, has negative effect on the interpersonal relationship of the classmates.

10. The innovative practices followed in the innovative CBSE School, has negative effect on the interpersonal relationship among the same gender classmates.

11. The innovative practices followed in the innovative CBSE School, has negative effect on the interpersonal relationship among the opposite gender classmates.

12. There is no significant effect of innovative practices on the interpersonal relationship of students with teachers of the innovative CBSE school students with conventional CBSE school students.

Innovative Practices and Communication skills

13. The innovative practices followed in the innovative CBSE School, has no effect on the communication skills of the students.

Innovative Practices and Academic Achievement

14. The innovative practices followed in the Innovative CBSE School, has no effect on the academic achievement of the students.
4.4. CASE STUDY OF INNOVATIVE STATE SCHOOL

4.4.1. Introduction

Innovative State Syllabus School is a residential high Malayalam medium affiliated to the Kerala State Board of Education. The school was started in 1956. It is situated in a rural village, in Thiruvananthapuram District of Kerala. This school is part of a big community and serves to children coming from hilly area near the Western Ghats.

This school is well known in India and abroad as a Kerala based voluntary non-governmental organization that has pioneered people-centred holistic rural development for improving the quality of life and living of village communities. It strives to promote rural development with a human face. Mitraniketan is an education-centered community, which strives to impart community-centered education.

The founder and Director of this school is a great philosopher and Gandhian who studied in Viswabharathi and Santhiniketan of Rabindra Nath Tagore, United State of America, United Kingdom and in Scandinavia (Denmark, Sweden, Finland and Holland) and different countries of the world. He is a member of around 35 governmental and non-governmental educational and community based organizations and holds the chairmanship of various organizations in and out side Kerala. He has participated in various conferences, seminars in different parts of the country and abroad including Denmark, Holland, Germany, Srilanka, U.S.A, Pakistan, Zimbabwe, England, South Africa, Japan and Nether lands as a delegate of government and non-governmental organizations. He was awarded various awards for his contributions in
the rural development from various organizations in and outside the country. The Joint Director and the headmistress of the this School is a graduate in History and law and a postgraduate in education. She was also studied in Santiniketan. She had also participated in various international conferences, seminars and workshops concerning various aspects of rural and tribal development, women and children’s welfare and development. She is also the chairperson of various governmental and non-governmental organizations in India. She had visited Mexico, U.S.A, U.K, Holland, Denmark, Germany, Srilanka, Mauritius and Pakistan for studying about various educational aspects.

The founder of the school was inspired by the precepts and practices of Mahatma Gandhi, Rabindranath Tagore, Arthur E Morgan of U.S.A. and NFS Grundtving of Denmark which motivated him to start an experiment in rural education and development at his birth place Vellanad, 25 kms by road from Thiruvananthapuram, the capital of Kerala State.

The Director was studying there in the large community of Santiniketan. a family of all ages, from the nursery school students to the old schools, which was founded by Rabindra Nath Tagore, for four years. Santiniketan has stressed importance of education, which makes our life in harmony with all existence. Education should uncloak the values of the past and integrate them into viable modern experiences. Tagore attempted to emulate the principles of ancient forest schools (tapovana vidyalayas) and residential hermitages (Gurukula) while re-introducing a spiritual element in the education. Here in Santiniketan teachers and students lived together, referring to each other as older and younger brothers, nature and natural environment became coexisting parts of the classroom. Creativity and self-
development were nurtured through the there aims freedom, fullness and vastness. Teaching was carried out in the native language of the student.

During vacations the Director used to visit Sevagram, the Mahatma Gandhi's ashram. Gandhi's ideas of introduction of crafts as an integral part of education and teaching, the concept of basic education and his emphasis on self realization and self-help and his ideas of the necessity of the school to be self sufficient, as part of an overall transformation toward a decentralized, self sufficient autonomous village were inspired, the founder a lot on his future educational experiments.

Later in 1954, the Director met Dr. Arthur. E. Morgan of U.S.A., who was the member of Indian commission on higher education in 1948. His proposal for the creation of a rural university system in India, dealing directly with the promotion of higher education in the village community also was a motivation for the founder of the school to have a rural based educational community.

At the John C. Campbell Folk School in North Carolina, founder Director again saw the influence and effectiveness of the Danish folk high school system, one of the most successful education programmes for rural societies in the World. Incorporating elements of residential living and study with vocational training, the folk school principles instilled a sense of place and belonging between the student and his community, environment and country. In many aspects, it resembled the ancient gurukula system of Indian education in a modern form. After visiting the Campbell School, he has visited the founder of the folk high schools in Denmark, Bishop N.F.S. Grundtvig. Grundtvig devised his system of "schools for life" on the principle of - the living word- an education based primarily on lively, informed discussions, with books as a secondary source - Enlightenment for life- putting life experiences before facts
theories and rote learning -People enlightenment -examining the contribution and connection of one’s own culture, community and vocation in the larger scope of the nation and environment. Balanced education -stressing that differences between people and ideas should fertilize each other, without conflict or domination by a single influence -Wisdom of common people -recognizing the value and common sense of village people, who are close to the land.

Based on the various experiences the founder Director started the school on Onam day in September of 1956.

4.4.2. Development of Community

In the midst of many challenges the community was growing up and his family home became the community center. The meetings were held in the shade of trees as in the tradition of the ancient Gurukulas. When the number of children coming to the meetings became great the community together built an open-air shelter. The children of the village formed their own associations and youth clubs, holding weekly assemblies and activities. Many children rushed to the community after school. The community encouraged and taught children drama, drawing, painting, music, folk, during their spare time. With the emphasis on activity and community development opportunities for work experiences were introduced. The change in the children’s attitude and interest in the activities attracted the schoolteachers, parents and the community around. The parents of the children also joined the community programmes and the community slowly developed.
4.4.3. Development of School

Through the supplementary education programme and house visits to the surrounding areas the community learned about the plight of the small children and started a nursery for the preschoolers. The nursery provided a place for exposure for the children and the parents for interaction and discussion. The teachers of this school took training in the innovative system of the Montessori methods and applied it in their nursery. Toys were made from coconut palms or twigs and leaves from the jack tree. Emphasis was given on outdoor playing, singing and dancing. After working with children for a year, the community realized that their work should extend to primary and secondary schooling. Starting with the first three standards, the school was launched in 1971. Each year a standard added and the school reached the secondary 10th standard levels. The school was allowed to operate as an experimental school without four walls by the chairman of the Basic Education Committee, Dr. Zakir Husain. It followed the state syllabus.

A community-centered education in this school provides a new experience within the formal schooling.

4.4.4. Educational Philosophy

The school has an educational philosophy of its own. The philosophy aroused from a deeply held belief in an integrated community education approach, addressed to the unique needs of the village youth, while seeking to rectify the defects and stereotypes inherent in the formal education system.

A dynamic, receptive environment, which fostered initiative and motivation, emphasized that education is not separate from life activities but an integral part of it.
Using the diversity of nature and the community as the school room and training ground, with priority given to first hand learning and interaction, the school was seen as a place of self discovery and of finding ones role in the community and society at large. The ‘school’ would not only an area of instruction but also a community for living. Residential living would incorporate the ethics of cooperation, honesty, work and sharing into the schooling. The student is not playing the role of an anonymous pupil, but carry out the responsibilities of a member of the community. Within this community centered education, the guiding spirit was one of critical inquiry, openness, respect for diversity, self reliance, promotion of human understanding and fellowship, and well-rounded activities, seeking do cultivate the personal development of each student as a contributing individual within the community, whether local or global.

The philosophical aspects of education found in the school are:

i) **Emphasis on Character Development**

The development of character of each person in the community is the most important element in community-centered education. Character arises from emotional contagion or example of those who have it; from critical examination and appraisal of the drives thus acquired; from the individuals’ own reflection, imagination and vision and from the constant practice from which insight, judgment, stamina and sustained purpose grow.

ii) **Uniting Schooling with Common Life**

The school recognizes the importance for participation by young students in the processes of value in common life. Commitment to participation in the common
life is not the spirit of conformity and does not surrender to the traditional patterns. In the case of standards and values, which survive objective critical inquiry, participation in the common life are with the aim of making that life harmonize with these standards. There are great values from the past to be inherited by such participation. But also there are blind spots, distortions, and lack of sensitivity, obsolescence’s, and other negative elements. The actual process of living calls for exercising judgment, for weighing alternatives, for selection, for rejection of negative elements and for persisting in holding to great values, for exercising courage.

iii) Creating an Environment of Free and Open Inquiry.

Standards and values, as well as policies and programs, should always be subject to objective, critical inquiry. They must be constantly on trial. Such a course is imperative to reduce the occurrence of dogmatism of vested ideas, of unimaginative routine. To venture on the frontier with an eager yet truly inquiring spirit, will go far toward avoiding or overcoming zealotry and dogmatism.

iv) Emphasis on Holistic Approach

The school views that only holistic development education can bring about the desired changes in individuals, who alone, after personal unfoldment, can act upon society for every kind of progressive social growth. The overall aim should be to see life as a whole and in good portion. When life is faced and is developed in good perspective and proportion, the various elements will inform and support and advance each other and the overall gains will be greater than if men should give their overall loyalties to separate, largely unrelated interests.
v) Importance of Community Life.

While a young child is part of such an informal educational undertaking he/she has the support and guidance of his teachers and fellow workers. Together they can face a difficult issue. Working alone, a young child may have an extremely difficult course to maintain his/her participation in the common life and yet maintain his standard of values. As a unit in an educational adventure he/she has a fortress to which to retreat for study of the issue, for renewing his strength, for consultation and for reaffirming himself. The school would promote formal study with first hand sharing of the actual life of his time with the guidance and encouragement of friends and teachers.

vi) Actual Experience with the Economic Processes.

If education is to be concerned with the whole of life with the aim of giving unity and consistency to the whole then it must be concerned with the economic processes by which men live. Young students educated in the school are to have actual experience with the economic processes in small industries. There was teaching and actual practice by children and adults alike in learning and improving agricultural methods in a spirit of neighborly cooperation.

4.4.5. Activities of The School

Over the years the school had grown into a large multifaceted voluntary organization with various rural development activities. It promoted community based education. It traversed the path of holistic development of people and society. The activities of the school had been acclaimed nationally and internationally. The activities of the school extended in various dimensions of Education, Agriculture,
Farming and Extension, Technology development, Women development etc. It worked in the field of education through its various projects such as Vikas Bhavan High school, Nava Vidya Bhavan School for the deaf and dumb, National open school, Mitraniketan People's College and Centre for Education Research Innovation and Development (CERID). In the areas of agriculture and farming community had launched several projects like Krishi Vigyan Kendra (Farm Science Center), Cattle Development Center, Fruit Preservation Unit, Sericulture Unit and Tissue Culture Unit. In the field of Technological development they had Technology Resource Centre, Science and Technology core group, Computer centre, Craft development centre, Library and Documentation centre, Rural building centre, Skill up gradation for rural artisans and Electronics laboratory. In the areas of women empowerment they had the projects of Rights and Opportunities- conscientization programme, self help groups and Micro-credit programmes, Women's co-operative society, Vocational training programmes and a Working women's hostel.

The campus had various other facilities like conference halls, audio visual facilities, open-air theater, hostels for students, staff quarters, guest house, Indoor stadium and play ground, post office, canteen, bakery, printing press, community health care centre etc. The community had extension centers at the various rural areas of Kerala.

The school had a six-member Science and Technology core group supported by Science and Technology Department of the government of India, taking sustained initiative in areas such as cost-effective construction technology, potable water supply, rural sanitation, artisanal machinery and tools, non-conventional energy sources etc.
The school technology resource centre trains rural children and youth in specific vocational skills like carpentry, masonry, pottery, black smith, leather goods, bell-metal-ware production, silk weaving, printing, and coir fibre products.

The Krishi Vigyan Kendra (Farm Science Centre) promotes environment-friendly and productivity focused agricultural and farming practices through planning, extension and innovative activities and has the support of the Indian Council for Agricultural Research.

4.4.6. Innovative State School

The school is the main part of the community. The different units of the community are linked together and mutually exchanging their ideas and resources. Here the students are coming from the various rural areas in different parts of Kerala, and from the local community. Most of the children are from the scheduled caste, scheduled tribes and from the back ward communities. Out of the 291 students 238 students are residential inmates. The pupil section ratio is 1:29.

The school is affiliated to the State Board of Education and followed the curriculum prescribed by the Board. In the School the children are trained in formal syllabus but provided opportunities for informal learning activities.

4.4.6.1 Teachers

The teachers are also part of the community. The Director’s wife is the Headmistress of the school. There are 17 teachers teaching from lower primary to high school level. All the teachers are fully qualified and trained. Out of 17 teachers, 7 of them are postgraduate and 7 are graduates. In addition to these there are teachers for music, art, dance and physical education.
Most of the teachers are coming from the places nearer to the community. Others live in the community separate staff quarters are provided for the teachers. Teachers are given training by the governmental agencies as other schools. In addition to this the Director and co-workers on their philosophy and methods of education trained the teachers in the community. Teachers have to attend the workshops, seminars and conferences on new technologies and methods in an outside community. New techniques and ideas are open for experimentation for the teachers. All the teachers were appointed permanently. They are providing reasonable salary and provided funds.

4.4.6.2 A Day of the school

The children are living here as a community. A homely atmosphere is prevailing here. Every body is part of the community and each one has to do his/her part as a member of the community. So even in the public holidays also there are things to be done by each member.

Usually a day begins with rising early from bed by around 5'O clock. They will be studying for one hour. The children are divided into various groups and they has to perform tasks such as, cleaning the premises, helping in the canteen, gardening etc from 6:15 to 7:15 A.M. After finishing this task the students spend time for their study. After finishing breakfast at 8.45 the whole inmates will be assembling in the Open Air Theater. They will be singing together and praying. The students has to present a thought as a speech. At 9 P.M. the classes start. There are five periods during the forenoon time with 45 minutes duration. In the after noon there are two periods. At 3.3.PM the school hours are over. After that they can engage in play and other activities. All students has to assemble in the Open Air Theater for evening
prayer and discussions. During this time there are classes taken by the inmates or experts from outside on various topics. Usually the children are seen engaged in their studies up to 8 P.M. After the dinner also they were studying up to 10 P.M. The hostel inmates were gathered together with their warden at 10 P.M. in the hostel hall and devoted time for having discussions about the days activities as in a home. Then they all pray together and go for sleep.

During the study time in the evening the boys are using the classroom itself for the study. The warden and inmate teachers helped them in their studies. Special care and remedial teaching programmes were also arranged for the students having learning difficulties during the evening time.

All the students who are studying from 5th to 6th class are given pre-vocational training twice in a week and on Thursdays and Saturdays the afternoon time from 2 to 5 PM is allotted for having the pre-vocational training.

4.4.6.3. Method of Education

Based on the unique philosophy of the school it had its own method of education also.

a. Outdoor Open Classrooms.

Apart from the office, staff room, headmistress room, there are 10 separate open classrooms in the campus each with a reasonable distance from one another. The classrooms are built in a simple way using bricks and are fully open without any walls. The classrooms are both in hexagonal shaped and circular shaped. Seven of the classrooms are hexagonal. The desks and benches are arranged almost in a semicircle manner. There is a permanent black board in each class. The roofs are concreted. The
teacher does not have a chair for sitting so while doing discussions the teacher also
becomes part of the group.

Apart from the openness in the physical appearance of the classroom, the class
is open to the outdoors nurturing curiosity, freedom, exploration and discovery. The
student would learn the natural role of the seasons and the value in bio-diversity,
interdependence and cultural diversity. Innovative approaches were formulated to use
the nature in the learning process of Science, Mathematics, Music, Poetry and
Language. The community was extended to a huge area of about 80 acres of green
vegetation and the atmosphere is nature friendly. They emphasized that child is not
only belonged to a social community, but is a part of the natural environment.
Examining the historical role of logging, cultivation and food gathering, the student
would receive first-hand knowledge on preserving and recreating the environment.
The Health Clinic in the community also utilized nature to impart knowledge of
natural herbs and medicines. The inmates including the students cultivated the food
for the community. Becoming part of the community and part of nature the child is
open to the study from nature. Trekking expeditions, campouts and picnics are also
organized into the deeper interior, allowing the children to acquire a greater
awareness of animals; the tropical forests and unknown tribal communities.

The teachers used to take children out of the classroom and encouraged the
students to learn from nature. For this they prepared special lesson plans based on the
topics of study and allowed the children to explore the nature.

b. Residential Living and the Community Life

As 82% of the school children are the residential inmates and most of the
teachers also resided within the community, a feeling of living together for learning is
found here. The director and his family, the whole inmates, the visitors, the teachers and the students all live in the same campus and having their food together, pray together, discuss together, encourage each other and play together that make this school a model of Gurukula system of education. There are separate hostels for the girls and boys. The hostels are also designed in a simple and attractive way and are constructed as a community built design. The inmates of the hostel used to gather together in the night and discussed the day’s activities. The children are happy and enjoying their life. When the parents come to meet the children, they could also stay with them and become a part of the community.

As an intimate part of an integrated community, the residential living component of the School became vital in developing the student’s sense of responsibility in community life. The living arrangement also allowed for personal interaction with people of different religions, castes, races, ages and communities. Students actively participated in the daily cleaning and custodial duties, fieldwork, cooking and washing up, and casual assistance in the clinic and training centers. Children are given small amounts of money in renumeration of their handicraft and horticulture products, which they learned to manage and use at the children’s co-operative store. Contact with community leaders and resource persons, as well as organized meetings, conference and concerts exposed the students to outside initiatives and happenings. Field trips also carried out to expose children to numerous landmarks, museums and engineering sights in the region. The Home for elderly in the community encourage the children to play a role in the care of the residents.
As a community, the students joined with the members of the school i.e. the inmates of Mitraniketan Peoples College in daily morning and evening assemblies, as part of a daily exchange of ideas, songs and readings.

c. The Role of the Teachers

The investigator observed the free interaction of the children with the teachers in and outside classrooms. Acting as guides, live-in companions and friends, teachers were referred to as “older brother” on older sister (“maman” or “chechi”). The Director itself was called by every one as “Valiyannan”, meaning elder brother. As co-participants in community life, the relationship between the students and teachers is meant to be informal, open, fraternal and respectful. Rote learning and dictation are supplemented with lively questioning, discussions and interchange of ideas. Parent-Teacher meetings are formally held every one-month in Mitraniketan and in the extension centers. The teachers made additional home visits in the villages of the students.

d. Exposure to Pre-Vocational Training

In every week on Thursdays and Saturdays, the afternoon time was allotted for the students to have their vocational training. The students studying in class V to X has to receive the training. The students are allowed to select the areas of interest after having an initial orientation to the various vocations. They could also change their areas based on their interest.

They are exposed to training in various crafts and technologies in the various projects working in the big community. This includes carpentry, shoulder bag making, leather works, weaving, spinning, tailoring, embroidery, pottery, ceramics, printing
press operation, notebook making, handicrafts, basket making, umbrella making, bakery; incense making, practice in basic electronics, electrical works, type writing, food processing, and fruit processing. The brooms used for cleaning, some of the tables and chairs in the school were made by the students themselves.

The exposure to both rural and high technology provided students with a well-rounded training in different areas. The "learning by doing" approach not only imparted vocational experience, but also gave the students direct contact with the various elements of building a self-sufficient and integrated community. The school didn't have a structured syllabus for this vocational training. The Director and the section heads are planning to develop a structured curriculum for this within three years.

e. Dairy, Poultry, Farming and Horticulture Training.

Each and every students living in the community are participating in the various farm and animal husbandry activities in the community. During the evening time and sometimes in the morning community work session, the students are engaged in the agricultural works. Fruit trees are planted and tended. Lessons are given in horticulture, sericulture, tissue culture and gardening, including the active participation of the students in cultivation. From such activities students gathered first-hand experience in soil and water management, food and dairy sources, and the careful planning of cultivation for self-sufficiency. The food products for the community are cultivated within the campus. So the agricultural experience was inevitably carried over into the canteen, where dietary lessons were imparted. The community gave importance in planting the indigenous trees and plants. They do have an area where they planted herbal plants also.
f. Health Care and Sanitation Training

The Health Clinic within the community has one doctor and three nurses. The students were given various lessons on hygiene, nutrition sanitation and even sex education three times a week. The children also participated in various village health campaigns. These developed in the students the feeling of importance of health care and sanitation and were transferred to their home communities.

g. Importance on Fine Arts and Cultural Activities.

The community had given great importance to the development of artistic talents and cultural heritage. There are teachers for music, drawing and dance in the school itself. With an emphasis on the cultural heritage of the region combined with creative and modern expressions students took courses in art, sculpture, music, dancing, public speaking, story telling and drama from villagers and artists steeped in experience. The school placed a priority on personal growth, imagination, originality, spontaneity, and individual expression in artistic talents. All students were encouraged to develop their own artistic potential, not limiting active involvement to the talented ones. Revival of certain waning traditions, such as “kampadavu kali” (stick dancing) and “thiruvathira” (folk dancing), along with folk and classical music that had largely disappeared in other areas were done here.

The supplementary education assemblies and clubs for the students studying in the near by schools were an occasion for exchange of the artistic talents.

h. Importance on Sports and Games.

The school community has a very big playground and a big indoor stadium. The school had a three months sports and leadership training course for the rural
youth interested in sports and games. The school could utilize the facilities in the sports wing. The school has a separate physical education instructor. The school and the community gave more emphasis on indigenous sports and games like "onapanthu" and "kabadi" along with modern games of cricket, football, hockey, volley ball, basket ball etc. the students can use the facilities available in the community sports wing for the rural youth.

i. Library

There is a separate two-storied library for the whole community. The library has separate wings of reading room, and children's library. Through the continual donation of books from patrons in surrounding areas and abroad, there are around 20000 books, fifty regular journals and newspapers in Malayalam and English. With books in several languages, including Malayalam, English, Hindi, Tamil, Sanskrit and few books in French, Danish and German the reading room provided the students an opportunity for research and discovery. The teachers used to give assignments and projects based on interesting topics and are allowed to engage in library work. The library acts as a center for developing the reading habits of the children. The librarian had arranged the books in an attractive way in the children's library. The walls of the library were the place for attractive quotations.

j. Interaction with the Visitors

Thousands of visitors including various ministers, ambassadors, and eminent persons of various fields come and share their experiences. The visitors from abroad also used to come there. These interactions are chances for the children to develop.
4.4.7 Conclusion

From the study of the institutional profile of the innovative State school the investigator found that the school has a unique philosophy as its own. The importance of school as a place of community living and the importance given for pre-vocational training in order to achieve self-sufficiency for the development of the rural students are relevant for the upliftment of the rural societies in various places.
4.5 CASE STUDY OF CONVENTIONAL STATE SCHOOL

4.5.1 Conventional State School

The conventional State school is a residential Malayalam medium high school specially for students of weaker sections of the society, especially scheduled caste and scheduled tribe. This is a co-educational school providing education from standard I to standard X. Most of the students belong to the tribal categories ‘choranaika’ and ‘kattunaika’ of colonies of Nilambur areas. The investigator has considered only VII class from this school.

It is affiliated to the Kerala State Board of Education. The school was started in 1993 and is situated in a rural village in Malappuram District of Kerala.

There is a committee for running the school and the committee includes, the collector, deputy director of education, district medical officer, project officer and Assistant, Educational Officer. The academic faculty of the school is headed by the headmaster. The total strength of the school is 302 and there are 16 teachers.

4.5.2 Physical Facilities

a. Classroom.

The school is a two storied building including the hostel. There are 18 rooms, in that 10 of them are used as classrooms and other rooms are used as staff room, office room, Principals’ room, computer room, hostel, dining hall and kitchen.

The classrooms are separated by a wall and all the classrooms are reasonably larger so that students can sit comfortably. Adequate number of benches and desks are
available in each classroom. Good quality black boards are projected in each classroom. All the rooms are well ventilated with sufficient passage of light and air. The arrangement of the classroom is in the conventional way.

There are enough toilet facilities for boys and girls. Good drinking water is also available.

b. Library

The school does not have a separate library room and there is no library hour. There are around 800 books and they are arranged in a separate shelf. During the free time students are allowed to take books for one week and the books are issued to the students by their class teachers.

c. Laboratory

There is no separate room for practical works. All the chemicals and apparatus are kept in a small cupboard. Some of the teachers use these chemicals and apparatus in the classroom teaching.

d. Play ground

The school has a play ground which is close to the school campus. They have the opportunities to practice different games such as, foot ball, volley ball, cricket, basket ball, ring etc.

In the evening, all the students spend about 2 hours for playing games and doing exercises. There is a separate room for keeping the sports materials.
Students get opportunities to participate in competitions outside the school campus.

4.5.3 Educational Facilities

a. Teachers

There are 16 teachers including headmaster, physical education and music teachers. The State public service commission appoints the teachers in the school. The minimum qualification of the teachers in the school is B.A / B.Sc. + B.Ed. Out of 16 teachers, 10 of them are graduate and others have diploma only. All the teachers have to attend various in-service teacher education programmes conducted in Kerala to improve their method of teaching. The members from block recourse centre, assistant education officers and others authorities used to visit the school and give appropriate corrections. Two teachers, one lady and one male teacher are residing with the students. Those teachers used to give remedial teaching to the backward students in the evening up to 8'O clock. For high school students, extra classes will be there in the morning and evening.

b. Pupil – Teacher Ratio

The total number of students at present is 302 and there are 16 teachers. Thus the pupil teacher ratio is 1:19.

c. Pupil – Section Ratio

The total number of students in each section is given below:
Table 4.14 Showing the Number of Students in the Conventional State School in each Section.

<table>
<thead>
<tr>
<th>Class</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
<th>X</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of students</td>
<td>25</td>
<td>28</td>
<td>33</td>
<td>32</td>
<td>35</td>
<td>33</td>
<td>32</td>
<td>29</td>
<td>31</td>
<td>24</td>
<td>302</td>
</tr>
</tbody>
</table>

Hence, the ratio is 1:30

d. Method of Teaching

The school follows the curriculum prescribed by the state board of education. The method of teaching is conventional and most of the teachers are using the teacher-centered approach. Even though, the students are getting opportunity to interact with the teachers in the classroom, there was no provision for them to have a free interaction with the teachers outside the class room. The teachers did the group activities only in some periods and there was little provision for pupils' interactive activities. Most of the time teacher will be lecturing based on the textbooks and teaching aids were occasionally used. The teachers demonstrated science experiments and students were not getting a chance to do the experiments.

e. A Day of the School

The children are living in the hostel with two teachers. The Headmaster is the warden of the hostel but she is not residing with them.
Usually, a day begins with rising early from bed around 5.30 am and they start their day with prayer. From 7 AM to 8.30 AM and 9 AM to 9.30 AM, they can spend time for their study and in the middle they go for breakfast.

At 9.45 AM the classes start. The class time is divided into 7 periods of 45 minutes each. It includes the subjects, music, computer training and co-curricular activities. At 4.00 PM, they can engage in play and other activities. Again at 6.30 PM they gather together for prayer. Usually the children are engaged in their studies up to 8’ O clock. After the dinner also they would be studying up to 10’ O clock. At 10’ O clock they go for sleep.

During the study time, the teachers who are residing with them would be helping them in their study. Special care and remedial teaching programmes were arranged for them.

f. Computer Education

The school has a computer room for the Akshaya project done by the Government. It itself acted as the IT period. In a week two periods were there for the IT class. The 8th class students are taught according to their syllabus. The school does not have a single computer separately.

g) Evaluation System

The examination was done through the usual way. There was continuous and comprehensive evaluation of the students based on the board of Education.
e) Parent Teacher Association

The parents are satisfied with the school. During holidays students are taken back to home with their parents. School would be given the T.A for going home also. The P.T.A. meeting would be conducted during those days and there is a good P.T.A. executive committee.

4.5.4 Conclusion

From the study of the institutional profile of the conventional State school the investigator found that the method of teaching, evaluation system, co-curricular activities, the timetable followed and other physical facilities are same as other State schools.
4.6 COMPARISON OF INNOVATIVE STATE SCHOOL WITH CONVENTIONAL STATE SCHOOL

4.6.1 Comparison on Qualitative Aspects

The institutional profiles developed by case study method for the innovative state school and conventional state school were analysed on all dimensions with an objective of finding the various innovative practices followed in the innovative state school.

4.6.1.1 Analysis

On analysis it was found that both the schools have similarities in the various dimensions. Along with the similarities found there were differences in the various dimensions too.

The similarities felt on comparing the innovative state school with conventional state school were; on the number of class rooms, the immediate facilities available in the school, the facilities for computer education, physical education, in the pupil-teacher ratio, the pupil section ratio, the facilities available in the hostels, the food provided, the residential system, the category which pupil belonged to and curriculum followed.

The innovative state school has all minimum facilities available in the conventional state school. There was no single area, which the innovative state school lacked behind, in the basic requirements. The training for the teachers, the
academic qualifications of the teachers and the system for the upliftment of the weaker sections were not below the level of conventional state school.

The innovative state school has provide various additional provisions which were not available in the conventional state school. As the conventional state school had all the minimum requirements for such type of a school it could act as a sample for the other conventional state school in Kerala. With this base line the additional provisions available in the innovative state school had been considered as the innovative practices followed in the innovative state school.

The innovative state school does have a clear vision and unique philosophy of their own apart from the governmental policies. The school is part of an integrated community and the community is an education centered community which strives to impart community central education. The community and the school emphasis on the character development of the children, uniting schooling with common life, creating an environment of free and open inquiry, holistic approach of education, importance of community life and actual experience with day today life situation. The school was not only place for instruction, but a community for living. Both the innovative and conventional schools were residential schools. The students studying in the innovative state school are found to be more a responsible member of the community. Within this community centered education, the spirit of critical inquiry, openness, respect for diversity, self reliance, promotion of human understanding and fellowship were fostered among the children. The children are given responsibility first like each member is assigned responsibility in a family. The everyday meeting in the hostel before
bedtime and having discussion and open conversations, the children are made to feel homely environment at school. It was found that all the children were interested and accountable more in their responsibilities as a member of the community.

The method of education provided in the innovative state school was novel when compared to the conventional state school. The out door open classrooms not only provided novelty in the physical appearance of the classroom, the class was open to the out doors nurturing curiosity, freedom, exploration and discovery of the children. Innovative approaches to use the nature in the learning process of science, mathematics, music, poetry and language were introduced here. The nature centered philosophy of education could be seen in the innovative state school. The feeling of preserving and recreating the environment was fostered in the school. Learning with nature and from nature had been fostered in this school.

The residential living and the community life provided in the innovative state school is extremely different from the conventional state school. The Director and the Joint Director along with teachers and the students live in the same campus and meet together, pray together, discuss together and having a feeling that each one is part of the community and it gives a feeling of Gurukula system of education. The hostels for the students were designed in a simple and attractive way and as a home. The children were found more happy and enjoying their life as in a home in this innovative state school. The community living fostered the social interaction of children with people of different religions, castes, races, ages and communities. As they were living in an integrated community, the children
enjoyed the provision of interaction with people from various fields like community leaders, resource persons etc. in and outside the country. The children were getting exposed to the various conferences, workshops and seminars on various initiatives and issues, which fostered their widening of knowledge.

The teacher pupil relationship was more friendly and offered a free interaction. The teachers were referred as older brothers and older sisters.

The frequent visit of the teachers to the students' home fostered a good relationship between the teachers and the students family.

The prevocational training offered in the innovative state school for a duration of 6 hours a week during vocations was a novel initiative. The "learning by doing" approach not only imparted vocational experience, but gave the students direct contact with the various elements of building a self sufficient and integrated community. The creative talents and abilities were waken up buy the training offered in the school. The prevocational training provided a future scope for the below average and average students who could work, earn and live after their schooling, which the conventional school could not provide. The school offered the children to be self realized and self sufficient.

The training offered in the areas of agriculture and animal husbandary were unique and this offered the child to have a basic idea about agriculture and farming which helps them in the future life to be self sufficient. The food products needed for the community were produced in the school and community and the school itself is showing the children to be self sufficient which the conventional schools could not offer.
The importance given to health care and sanitation and sex education class offered occasionally developed in the students the feeling of importance of health care and sanitation and were transferred to their home communities which the conventional system could not offer.

Even though the conventional school offers the training in the arts and cultural activities they did not offer it on a wider way. The innovative state school placed a priority on personal growth, imagination, originality, spontaneity and individual expression in artistic talents. Here all the children were encouraged to develop their own artistic potential, not limiting to the talented ones. The special courses provided in art, sculpture, music, dancing, public speaking, story telling and drama by the school steeped the experience of the children.

The importance given to the indigenous arts, crafts and traditional habit of the home community the child belonged, offered the development of their own culture.

The facilities available for sports and games are more worthwhile. The importance given to the indigenous sports and games and the special training offered for sports and games for the upliftment of their own home community act as a means for the rural development.

The library facilities offered by the innovative state school and the emphasis on developing reading habits and linking the classroom activities with library works are remarkable.
The innovative school is a model of school as a community for living. The self sufficiency and the orientation to pre vocational training and training in the leadership qualities could cause the upliftment of the rural community of India, which was the dream of Gandhiji though his Basic education.

The innovative state school was trying to depict the relevance of the idea of basic education by Mahatma Gandhi and his idea of the person to be self realized and self sufficient and the philosophy of Ravindra Nath Tagore on the communal living and the Gurukula vision of education in the modern society. It also experiment their philosophies and come out with the results of success in the upliftment of the rural villages in Kerala. Based on the interview with the teachers and the head of the institutions of both the schools it was found that the Director of the innovative school is conveying its novel ideas of innovativeness in education and by the proper and regular orientation and monitoring it is transferred to the process curriculum transaction. It was also found that the ideas and opinions of the conventional schoolteachers were not beyond the conventional level, they did not have more opinion to the novel ideas in education. Instead the teachers in the innovative state school was found that they have more openness to the novel ideas of education and they were interested in introducing and experimenting new and valid principles and visions on education.


On the comparisons of institutional profiles of the innovative state school and conventional state school based on the interviews with the direction and the
teachers and students, the investigator could found that the following are the innovative practices followed in the innovative state school.

1. The school has a clear vision and unique philosophy on education.
   
   (i) Emphasis or character development
   
   (ii) Uniting schooling with common life
   
   (iii) Creating an environment of free and open inquiry
   
   (iv) Emphasis on holistic approach of education
   
   (v) Importance of community life
   
   (vi) Provision of actual experience with day today life situation.

2. The school is an education centered community which strives to impart community centered education.
   
   (i) The school is part of an integrated community with lot of resources of its own.
   
   (ii) The school was not only a place for instruction but a community for living
   
   (iii) The community centered education seen to fostering in children the spirit of critical injury, openness, respect for diversity self reliance, promotion of human understanding and fellow ship.
3. Methodology of education followed in this school has uniqueness of its own.

(i) The classrooms are outdoor open classrooms of hexagonal or circular shaped arrangement

(ii) The class was open to the outdoors nurturing curiosity, freedom, exploration and discovery.

(iii) The teachers used to take children out of classroom and learn from nature based on the topics of study.

(iv) The method of classroom transaction is highly pupil centered.

(v) Emphasis on developing reading habits and linking the classroom activities with library works.

4. Nature centered curriculum emphasizing on learning with nature and learning from nature.

(i) The learning process of science, Mathematics, language, music, poetry and language were highly nature centered.

(ii) The feeling of preserving and recreating the environment is fostered.

(iii) Training in the areas of agriculture, sericulture, fruit preservation and animal husbandry are given
(iv) The nature club which fosters the importance of cultivation of indigenous herbal plants

(v) Trekking expeditions, campouts and picnics into the deeper interior tropical forests and unknown tribal communities.

(vi) The agricultural products prepared by the students were used in the canteen, where dietary lessons were impacted.

5. Learning to live together as a community

(i) The direction, the teachers, the innovates and the students live together as a responsible members of the community as in a Gurukula system

(ii) The feeling at home in the hostel through the free interaction and gathering between the inmates.

(iii) The design of the hostels as a community home.

6. The role of teachers

(i) Acting as guides, companions and friends. Teachers were referred to as “older brother” or “older sister”.

(ii) As co-participants in community life, the relationship between the students and teachers was informal, open, fraternal and respectful.

(iii) Teachers used to do home visits of the students.
7. Exposure to pre-vocational training

(i) The leaning by doing approach is emphases

(ii) The students studying in upper primary and high school level participated twice in a week. For six hours in various crafts and training programmes including, carpentry, shoulder by making, leather work, weaving, spinning, tailoring, pottery, ceramics, printing press operations, note book making, handicrafts, basket making, typing, electronic, electrical, embroidery, bakery, door mats, umbrella making and coin products.

(iii) Students are getting direct contact with the various elements of building a self sufficient and integrated community which help them in their future life.

8. Importance on Health care and sanitation

(i) The students were getting classes on hygiene, nutrition sanitation three times a week.

(ii) Emphasis on exposing students on sex education from the lower class onwards.

9. Importance on arts and cultural programmes

(i) All the students were encouraged to develop their own artistic potential, not limiting to do the talented ones.
(ii) The school gave more priority on personal growth, imagination, originality, spontaneity and individual expression in the performance facts.

(iii) The students’ courses in art, sculpture, music, dance, public speaking, story telling and drama from villagers, traditional tribal artists and professional artists.

(iv) More emphasis on indigenous arts and cultural programmes rural communities.

10. Importance given in training in indigenous sorts and games along with modern sports and games.

11. The integrated community offer the children to have interaction with eminent persons in various fields in and outside the country.

12. The teachers and students were receiving additional exposure by participating in the workshops, seminars, camps and conferences on various subjects and on leadership skills inside the community.

The effect of the above mentioned innovative practices followed in the innovative state school on the academic achievement and life skills areas of communication skills, creative thinking, and interpersonal relationship of students were analyzed quantitatively are presented in the next section of this chapter.
4.6.2. Comparison on Quantitative Aspects

This section presents the comparison of Innovative State School with Conventional State School on the various dimensions of Life skills i.e. creative thinking, interpersonal relationship and communication skills and the academic achievement of the students quantitatively.

4.6.2.1. Verification of Hypothesis Related to Creative Thinking

Hypothesis 1.0.2

There is no significant effect of innovative practices on the creative thinking of students from innovative state school and students from conventional state school.

To test the above hypothesis t-test has been done. The results of the analysis are given in the table below:

Table 4.15: Comparison of students of innovative state school and conventional state school on creative thinking.

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-ratio</th>
<th>Level of significance (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative State School</td>
<td>34</td>
<td>97.94</td>
<td>26.81</td>
<td>3.918</td>
<td>0.000</td>
</tr>
<tr>
<td>Conventional State School</td>
<td>32</td>
<td>74.06</td>
<td>22.33</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The t-value is highly significant for the innovative state school, which indicated that there is significant effect of innovative practices on the creative thinking of students from innovative state school in comparison to students from conventional state school. Hence null hypothesis is rejected.
This shows that the innovative practices followed in the innovative state school, has significant effect on the creative thinking of the students.

Hypothesis 1.1.2

There is no significant effect of innovative practices on the verbal creative thinking of students from innovative state school and students from conventional state school.

To test the above hypothesis t-test has been done. The results of the analysis are given in the table below:

Table 4.16 : Comparison of students of innovative state school and conventional state school on verbal creative thinking along with the three dimensions.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-ratio</th>
<th>Level of significance (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency</td>
<td>Innovative State School</td>
<td>34</td>
<td>20.53</td>
<td>9.63</td>
<td>4.141</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Conventional State School</td>
<td>32</td>
<td>11.53</td>
<td>7.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexibility</td>
<td>Innovative State School</td>
<td>34</td>
<td>14.00</td>
<td>6.35</td>
<td>3.551</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Conventional State School</td>
<td>32</td>
<td>9.06</td>
<td>4.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Originality</td>
<td>Innovative State School</td>
<td>34</td>
<td>7.15</td>
<td>7.05</td>
<td>1.367</td>
<td>0.176</td>
</tr>
<tr>
<td></td>
<td>Conventional State School</td>
<td>32</td>
<td>4.88</td>
<td>6.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal</td>
<td>Innovative State School</td>
<td>34</td>
<td>41.68</td>
<td>20.22</td>
<td>3.433</td>
<td>0.001</td>
</tr>
<tr>
<td>Creative</td>
<td>Conventional State School</td>
<td>32</td>
<td>25.47</td>
<td>17.98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The t-value for verbal creative thinking is highly significant for the innovative state schools, which indicated that there is significant effect of innovative practices on the verbal creative thinking of students from innovative state school and students from conventional state school. Hence null hypothesis is rejected.

This shows that the innovative practices followed in the innovative state school, has significant effect on the verbal creative thinking of the students.

To test the significance of the mean difference for all the dimensions of verbal creative thinking, the investigator set up the sub hypotheses for each dimensions.

Sub Hypothesis 1.1.2

There is no significant effect of innovative practices on the fluency of verbal creative thinking of students from innovative state school and students from conventional state school.

The t-value for fluency of verbal creative thinking is highly significant for the innovative state schools, which indicated that there is significant effect of innovative practices on the fluency of verbal creative thinking of students from innovative state school students from conventional State school. Hence null hypothesis is rejected.

This shows that the innovative practices followed in the innovative state school, has significant effect on the fluency of verbal creative thinking of the students.

Sub Hypothesis 1.2.2

There is no significant effect of innovative practices on the flexibility of verbal creative thinking of students from innovative state school and students from conventional state school.
The t-value for flexibility of verbal creative thinking is highly significant for the innovative state schools, which indicated that there is significant effect of innovative practices on the flexibility of verbal creative thinking of students from innovative state school and conventional state school students. Hence null hypothesis is rejected.

This shows that the innovative practices followed in the innovative state school, has significant effect on the flexibility of verbal creative thinking of the students.

**Sub Hypothesis 1.3.2**

*There is no significant effect of innovative practices on the originality of verbal creative thinking of students from innovative state school and students from conventional state school.*

The t-value for originality of verbal creative thinking is not significant for the innovative state schools, which indicated that there is no significant effect of innovative practices on the originality of verbal creative thinking of students from innovative state school and students from conventional state school. Hence null hypothesis is accepted.

This shows that the innovative practices followed in the innovative state school, has no significant effect on the originality of verbal creative thinking of the students.

The mean scores for all dimensions of verbal creative thinking of students in the innovative state school are higher than that of the conventional state school. It is a clear indication that the innovative practices followed in the innovative state school has significant effect on the verbal creative thinking ability of the students than the students from conventional state school.
Hypothesis 1.2.2

There is no significant effect of innovative practices on the non-verbal creative thinking of students from innovative state school and students from conventional state school.

To test the above hypothesis t-test has been done. The results of the analysis are given in the table below:

Table 4.17: Comparison of students of innovative state school and conventional state school on non-verbal creative thinking and along with two dimensions.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-ratio</th>
<th>Level of significance (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Innovative State School</strong></td>
<td>34</td>
<td>31.35</td>
<td>9.38</td>
<td>1.894</td>
<td>0.063</td>
</tr>
<tr>
<td></td>
<td><strong>Conventional State School</strong></td>
<td>32</td>
<td>26.53</td>
<td>11.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Originality (Non Verbal)</td>
<td><strong>Innovative State School</strong></td>
<td>34</td>
<td>24.91</td>
<td>5.89</td>
<td>2.302</td>
<td>0.025</td>
</tr>
<tr>
<td></td>
<td><strong>Conventional State School</strong></td>
<td>32</td>
<td>22.06</td>
<td>3.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elaboration (Non Verbal)</td>
<td><strong>Innovative State School</strong></td>
<td>34</td>
<td>56.26</td>
<td>13.14</td>
<td>2.477</td>
<td>0.016</td>
</tr>
<tr>
<td></td>
<td><strong>Conventional State School</strong></td>
<td>32</td>
<td>48.59</td>
<td>11.94</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The t-value for non-verbal creativity is significant for the innovative state school, which indicated that there is significant effect of innovative practices on the non-verbal creative thinking of students from innovative state school and students from conventional state school. Hence null hypothesis is rejected.
This shows that the innovative practices followed in the innovative state school, has significant effect on the non-verbal creative thinking of the students.

To test the significance of the mean difference for all the dimensions of non-verbal creative thinking, the investigator set up the sub hypotheses for each dimensions.

**Sub Hypothesis 1.4.2**

There is no significant effect of innovative practices on the originality of non-verbal creative thinking of students from innovative state school and conventional state school.

The t-value for originality of non verbal creative thinking is not significant for the innovative state schools, which indicated that there is no significant effect of innovative practices on the originality of verbal creative thinking of students from innovative state school and students from conventional state school. Hence null hypothesis is accepted.

This shows that the innovative practices followed in the innovative state school, has no significant effect on the originality of non-verbal creative thinking of the students.

**Sub Hypothesis 1.5.2**

There is no significant effect of innovative practices on the elaboration of non-verbal creative thinking of students from innovative state school and students from conventional state school.

The t-value for elaboration of non verbal creativity is significant for the innovative state school, which indicated that there is significant effect of innovative practices on the non-verbal creative thinking of students from innovative state school and students from conventional state school. **Hence null hypothesis is rejected.**
This shows that the innovative practices followed in the innovative state school, has significant effect on the elaboration of non-verbal creative thinking of the students.

**Conclusion**

On comparing the students of the innovative state school with conventional state school on their performances in the various creative thinking problems it could conclude that the various innovative practices provided in the innovative state school could contribute to the fostering of the verbal fluency, verbal flexibility and non-verbal elaboration dimensions of creative thinking. It is found in the present study that the innovative practices provided in the innovative state school could not contribute significantly to the verbal and nonverbal originality dimensions.

The findings of the present study on the effect of innovative practices on creative thinking are in agreement of the studies conducted by Simonton (2000) where the researcher suggested the exposure of students to multicultural situations and openness in their participation foster creative thinking. The findings of the study also supports the study conducted by Hessian et.al. (1995) where there was significant differences in all the dimensions of creative thinking except originality for the industrial and non industrial belts children. The findings of the study are in disagreement with study conducted by Singh, Bhodev (1996) on psycho social factors effecting creativity where he concluded that family size, socio cultural and educational backgrounds of the family and levels of aspiration of biological factors suppressed the pupil's creativity.
4.6.2.2. Verification of Hypothesis Related to Interpersonal Relationship

Hypothesis 2.1.2

There is no significant effect of innovative practices on the interpersonal relationship among classmates of innovative state school students and conventional state school students.

To test the above hypothesis t-test has been done. The results of the analysis are given in the table below.

Table 4.18: Comparison of students of innovative state school and conventional state school on interpersonal relationship of classmates.

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-ratio</th>
<th>Level of Significance (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative State School</td>
<td>34</td>
<td>3.4640</td>
<td>0.3932</td>
<td>1.256</td>
<td>0.214</td>
</tr>
<tr>
<td>Conventional State School</td>
<td>32</td>
<td>3.3283</td>
<td>0.4824</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The t-value for interpersonal relationship among classmates is not significant for the innovative state schools which indicated that there is no significant effect of innovative practices on the interpersonal relationship among classmates of innovative state school in comparison to students from conventional state school. Hence the null hypothesis is accepted.

This shows that the innovative practices followed in the innovative state school, has no effect on the interpersonal relationship of classmates.

To test the significance of the mean difference for the dimensions of interpersonal relationship, the investigator set up the sub hypotheses for each dimension.
Sub Hypothesis 2.1.2

There is no significant effect of innovative practices on the interpersonal relationship among same gender classmates of the innovative state school and conventional state school students

Table 4.19: Comparison of students of innovative state school and conventional state school on interpersonal relationship among same gender classmates.

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-ratio</th>
<th>Level of significance (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative State School</td>
<td>34</td>
<td>3.8429</td>
<td>0.4994</td>
<td>2.519</td>
<td>0.014</td>
</tr>
<tr>
<td>Conventional State School</td>
<td>32</td>
<td>3.5147</td>
<td>0.5588</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The t-value is significant, implying that there is a significant effect of innovative practices on the interpersonal relationship among same gender classmates of the innovative state school in comparison to students of conventional state school. Hence the null hypothesis is rejected.

This indicated that the innovative practices followed in the innovative state school, has significant effect on the interpersonal relationship among same gender classmates.

Sub Hypothesis 2.2.2

There is no significant effect of innovative practices on the interpersonal relationship among opposite gender classmates of the innovative state school and conventional state school students
Table 4.20: Comparison of students of innovative state school and conventional state school on interpersonal relationship among opposite gender classmates.

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-ratio</th>
<th>Level of significance (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative State School</td>
<td>34</td>
<td>3.0850</td>
<td>0.5285</td>
<td>-0.444</td>
<td>0.658</td>
</tr>
<tr>
<td>Conventional State School</td>
<td>32</td>
<td>3.1419</td>
<td>0.5108</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is no significant effect of innovative practices on the interpersonal relationship among opposite gender classmates of the innovative state school in comparison to students of conventional state school.

The t-value is not significant for the state schools which indicates that there is no significant effect of innovative practices on the interpersonal relationship among opposite gender classmates of innovative state school and conventional state school students. Hence the null hypothesis is accepted.

This shows that the innovative practices followed in the innovative State school, has no effect on the interpersonal relationship among opposite gender classmates.

The findings of the study shows that the innovative practices followed in the innovative state school could not contribute significantly to the interpersonal relationship of the classmates, or in the dimension of interpersonal relationship of opposite gender classmates but could contribute to the interpersonal relationship among the same gender significantly. The communal living of the innovative state school could be the reason for the significance in the interpersonal relationship among same gender classmates.
4.6.2.3. Verification of Hypothesis related to Communication skills.

Hypothesis 3.1.2.

There is no significant effect of innovative practices on the communication skills of students from innovative state school and students from conventional state school.

To test the above hypothesis t-test has been done. The results of the analysis are given in the table below:

Table 4.21 : Comparisons of students of innovative state school and conventional state school on communication skills.

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-ratio</th>
<th>Level of significance (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative State School</td>
<td>34</td>
<td>52.765</td>
<td>5.428</td>
<td>2.193</td>
<td>0.032</td>
</tr>
<tr>
<td>Conventional State School</td>
<td>32</td>
<td>49.72</td>
<td>5.854</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The t-value for the innovative state schools (t=2.193, p<0.05) is significant, implying that there is a significant effect of innovative practices on the communication skills of students from innovative state school and students from conventional state school. Hence the null hypothesis is rejected.

This shows that the innovative practices followed in the Innovative State School has significant effect on the communication skills of the students.
4.6.2.4. Verification of Hypothesis related to Academic Achievement

Hypothesis 4.1.2.

There is no significant effect of innovative practices on the academic achievement of students from innovative state school and students from conventional state school.

To test the above hypothesis t-test has been done. The results of the analysis are given in the table below:

Table 4.22: Comparisons of students of innovative state school and conventional state school on academic achievement

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-ratio</th>
<th>Level of significance (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative State School</td>
<td>34</td>
<td>40.38</td>
<td>5.716</td>
<td>4.227</td>
<td>0.000</td>
</tr>
<tr>
<td>Conventional State School</td>
<td>32</td>
<td>32.50</td>
<td>9.141</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The t-value for the innovative state schools is highly significant, implying that there is a significant effect of innovative practices on the academic achievement of students from innovative state school and students from conventional state school. Hence null hypothesis is rejected.

This is a clear indication that the innovative practices followed in the innovative state school have significant effect on the academic achievement of the students.
4.6.2.5 Findings of the study

On the comparison of the innovative State school and the conventional State school following are the major findings.

**Innovative Practices and Creative thinking**

1. The innovative practices followed in the innovative State School, has significant effect on the creative thinking of the students.

2. The innovative practices followed in the innovative State School, has significant effect on the verbal creative thinking of the students.

3. The innovative practices followed in the innovative State School, has significant effect on the fluency of verbal creative thinking of the students.

4. The innovative practices followed in the innovative State School, has significant effect on the flexibility of verbal creative thinking of the students.

5. The innovative practices followed in the innovative State School, has no significant effect on the originality of verbal creative thinking of the students.

6. The innovative practices followed in the innovative State School, has significant effect on the non-verbal creative thinking of the students.

7. The innovative practices followed in the innovative State School, has no significant effect on the originality of non-verbal creative thinking of the students.

8. The innovative practices followed in the innovative state school, has significant effect on the elaboration of non-verbal creative thinking of the students.
Innovative Practices and Interpersonal Relationship

9. The innovative practices followed in the innovative State school, has no effect on the interpersonal relationship of classmates.

10. The innovative practices followed in the innovative state school, has significant effect on the interpersonal relationship among same gender classmates.

11. The innovative practices followed in the innovative State school, has no effect on the interpersonal relationship among opposite gender classmates.

12. There is no significant effect of innovative practices on the interpersonal relationship of students with teachers of the innovative State school students with conventional State school students.

Innovative Practices and Communication Skill

13. The innovative practices followed in the innovative state school has significant effect on the communication skills of the students.

Innovative Practices and Academic Achievement

14. The innovative practices followed in the innovative state school have significant effect on the academic achievement of the students.
4.7 CASE STUDY OF THE INNOVATIVE FLEXIBLE CURRICULUM SCHOOL

4.7.1 The School its Origin, Development and Perspective

The innovative flexible curriculum school selected is situated on the banks of ‘Narasi river’, a tributary of Kabani, in Nadavayal village of Wynad the tiny tribal dominated district in Kerala. The meaning of the school is dream, and now the school turned to be the dream of oppressed tribal people coloring their hopes and encouraging them to face the changes of modern society. The school was started in 1994 by a social activist, writer and artist from Waynad. He has a true love for humanity and art. He migrated to Wayanad in the childhood with his parents from Kottayam district. His innate love for art made him cross Narasi to reach the neighbouring Adivasi cottages, following the rhythm of ‘Thudi’ and ‘Ceeni’, the drum-like musical instruments. He lived with them, and enjoyed their folk arts. He became accustomed to their great culture, traditions and history. He was keenly sensitive to their goodness and innocence and studied their culture, music and folk arts. The music and arts were the strong media to communicate with tribal pupils. For centuries, they were agricultural labourers of ‘Janmis’, the landlords. When the lands were sold by Janmis to the migrants, the ‘Adivasis’ became unemployed. They neither had a job nor land to cultivate. They had nothing of their own, even a place to bury the dead. They were robbed of their wealth and pride and were abandoned to poverty and hunger. The modern system prevents them from surviving through the imposition of its formality. The director decided to react against the exploitation done to these tribes through his writings. After a thorough observation and study he tried to pictorise the history of tribal people in Wynad through the book “Mavelimantram”. 
The novel Mavelimantram was a beautiful heroic presentation of the life history of tribal people in Wynad. He won the 1994 Kerala Sahitya Academy Award for this novel.

The organized a drama in the name Nadugaddika, which took its roots from the knowledge that the wage of silence is death. It was a search for a solution to the acute problems of the silenced, downtrodden and poor Adivasis, whose lives were trampled under foot by Janmis and politicians, through ages. The undercurrent of ‘Nadugaddika’ was the strong opposition of the artist to the exploitation of Adivasis and his dreams about their uplift. The focus of his writings was Adivasi life. He became one among them with the full support of his wife, a college lecturer and their children. All the actors were tribals.

During the rehearsal camp of his social drama ‘Nadugaddika’, some tribal children were always present. The elders complained against children’s disinterest to attend the school. This made him realize the core of the problem—being compelled to learn things in Malayalam the language of their oppressors, towards which they developed hatred and fear. The language Malayalam is very different from their own dialects. Hence Adivasi children face difficulty in coping with the medium of instruction. Teachers fail to understand their problems and label them as ‘morons’. They may be accused of most of the mis-happenings in the class. Gradually they drop out from schools. They wander through the forests and fields, collecting fruits and insects, and catching crabs and fish from water bodies. The dropouts often becomes thieves and prostitutes and the modern society blames it as their natural tendency.

After the rehearsal and staging of Nadugaddika, the Director and his wife began to think of what they can do for these tribal children who were illiterate unclean
and superficially inferior to others in many areas. So they decided to conduct classes for them and began the classes in their house itself during daytime. At first, the number of children were few and gradually the number increased. The children were talented in drawing, music, dancing, acting and telling stories. The Director who was a good artist, knew that he could educate them through music and arts. Children were very co-operative. He organized a drama camp for them and spent time in drawing, painting, music, pottery and dance. Meanwhile he found time to draw their attention towards language and arithmetic.

After the rehearsal camp, the children were reluctant to go back to their huts in the evening. The reason was that in their huts, most of the elders were addicted to toddy. After drinking, some of them used to create problems in their huts.

4.7.2 The Developmental Stages of the School

The interested students who assembled in his house were shifted to a temporary place at Nadavayal. They made small huts, which were the place for the lodging of children. The huts were made in the traditional way of tribes. To make the huts they used bamboo and mud as the tribal people do. The classes were conducted also in these huts. Free food was given to them. The number of students was 32. There were 4 to 5 teachers. This was the budding stage of the school, the beginning of a dream come true. But in these limited circumstances the functioning of the institution did not become smooth.

A Charitable trust named VISTHAR in Bangalore sponsored money to buy land for this institution. With this money they bought 6 acres of land at Nadavayal near Panamaram in Wynad district. The place is near the river Narasi. The boundaries of the place are thick forests. But then also there was no money to construct buildings.
He organized an orchestra troupe of tribal children. This troupe began to present programs at various places. The money collected was utilized for the development of the institution. The school published an audio cassette of tribal songs named ‘Kanavu Ganangal’. During this period the institution obtained some aid from the government. The charitable trust ‘VISTHAR’ was also giving some money for the development of this institution.

By this time the school became noticed by the outside world. A lot of visitors from Kerala, from different parts of India and from abroad used to come there and contribute their part. There is one main building in which separate residential hostels for boys and girls are there. In the main hall they used to conduct common programmes. They built a library with all facilities. The huts in the campus were used as quarters for the teachers in the beginning. Two huts were used as guest rooms. With the aid got from the government they made a solar panel of 1000 N power. This solar panel supplied the current needed for the working of all electrical goods. A few tanks were built in the campus to supply water. Drinking water is available from well. For irrigation purpose water is obtained from the river Narasi. A kitchen with average facilities is there, were common mess is functioning. They started a large Kalari in the campus with the support of C.V.N. Kalari, where physical training began to give for both boys and girls. During this period they started a pottery plant with adequate facilities for preparing pots.

4.7.3 Philosophy and Objectives.

The innovative flexible curriculum school started with no theoretical educational philosophy. The organizer introduced a new approach to ‘learning’ in which emphasis is given to learning through activities; learning everything a new
from the very first alphabet with a new approach and vision. The philosophy behind the institution is the upliftment of the tribal pupil, which would result in equality and social change. The specific objectives of the school is to provide opportunities and space for these children.

➢ To train the children in developing a unique and highly creative personality to think differently, to do differently, to write differently, to draw differently, to act differently, to work differently, to live differently.

➢ To realize the self-actualization through education.

➢ To raise the child to the maximum potential.

➢ To think critically and creatively.

➢ To develop leadership skills to be more active and more dynamic.

➢ To develop free and open inquiry in and outside classroom.

➢ To learn to appreciate and affirm their own culture.

➢ To learn through interaction with culture and community.

➢ To assert their linguistic identities for education.

➢ To re-appropriate their histories and create their own future.

4.7.4 Administration and Financial Set up

At the initial stage the school had been registered as a trust with a board of members constituting his family members and friends. It is an independent institution with no special rules and regulations. The rules and regulations are created within the
community with the monitoring of the Director. There is no one getting salary from
the institution. People come and serve the community with a mind of service. There
are no regular appointed teachers even after 5 years of starting.

For five years VISTHAR provided some money. There was no fund form
Governmental authorities. The main source of income for the institution was the
Music troupe of the children. Their items included the performance of dances, songs,
bands, martial arts etc. they did their performance on various stages in different parts
of Kerala and outside Kerala. The other sources of income are the agricultural
products, handicrafts, pottery, audio cassettes, greeting cards etc, made by the inmates
of the school. Also they do receive contribution from well wishers.

4.7.5 Activities of the School

The school is more like an ashram or the 'Gurukulam' tradition. The Director,
along with other elders and children live and work together experiencing life in all
dimensions. There are 42 children in the age group of 4-21 years. There are 10 tribal
elder inmates, which play their own role. Elders from both tribes as well as from
outside come and stay with the children from time to time, imparting knowledge in
wide range of areas including traditional skills, tribal rituals, stories and songs.
Traditional song and myths, festivals, visits to hills, forests and other places
associated with them are part of their learning. The school gave more importance to
their tribal dialects and art forms. They learned their own history in their own
languages. Malayalam, English, and Hindi are introduced based on their interest.
They learned Science as a living enquiry into their surroundings. The field cultivated
by the commune and the neighbouring forests are their laboratories. Birds, insects,
animals etc were studied. Then they were given opportunity to learn abstract things.
To develop self-learning the school has opened a good library with a wide variety of books.

In order to be self-sufficient, they are prompted to do their own work in the commune i.e., washing, cleaning, cooking, rearing animals, cultivation and so on. To foster the critical thinking, the children were allowed to involve in dialogues, discussions, debates etc. To have an inner spiritual awakening, the children were learning the fundamentals of their inner strength and dynamism through ‘Yoga’ and ‘Meditation’. Musical instruments as well as both folk and classical dances and songs were being practice here. New trends in dramatics and paintings were introduced to them. The music troupe involving all the participants of the school did their performance on various stages in Kerala which gave them an opportunity to keep contact with external world. The ‘Kalaripayattu’ performed by all the students gave a wide publicity about Kalari in Kerala and other states. The workshops conducted by eminent persons for the inmates, outside students and for teachers from various school gave opportunity to have exposure to various societal problems.

4.7.6 A Day of the School

Usually, their day starts with rising early in the morning which is followed by the Kalari of the whole group except the ‘Kochumakkal’ (the younger ones). During this time the ‘Kochumakkal’ will be practicing yoga. After the Kalari the whole group will take bath. The works which were assigned to different groups were done in the meanwhile. Newspapers arrive by then and the elder ones go through them. The breakfast will be provided by 8.30 A.M. They were used to taking simple food. From 9 AM to 10 AM the whole group would assemble in the main hall for meditation. The Director or some other elders would lead them in meditation.
After the meditation the Director divides the whole group horizontally into 3 or more groups based on their age and ability for learning. The division of the children into groups will be flexible according to their mental capacity, skills, talents and age. Generally the first group included the students who are preparing for the secondary examination. The second group included the 7 leaders of the working group and the 12 other students of their level. The third group consists of 15 younger students with age range 4 to 10 years. Usually the first group of students will be preparing for their secondary examination under the guidance of the Director’s wife. The second group is engaged in learning English by the assistance of visitors from North India, during the days of data gathering by the investigator. Usually they prepare papers in different areas and are engaged in teaching the third group children by dividing them into small groups of 3 to 4 members.

In the afternoon after their meals they were engaged in different kinds of work. For doing the work the whole group was divided vertically into 7 groups and they did their assigned duty for that day. If visitors were available there to teach them, the students were engaged in class by visitors in the afternoon otherwise they would be engaged in self learning, clearing doubts, reading library books, practicing arts etc.

In the evening the first and second group engaged in different kinds of works including jeep driving, pottery, farming, etc. or they used this time for reading and reflecting about what they learnt in the morning. Meanwhile the third group practices Kalari in Kalari academy.

As the end of the day the whole group came together to sing, dance and then they go for supper. After the supper the younger ones were allowed to go to bed. The other two groups join together with Director and the elder inmates discuss about what
they learnt that day and they prepare for the coming day also. The children had to present in front of the whole group what they have learned.

The educational programme at the school are analyzed and presented below with respect to co-curricular and curricular aspects.

4.7.7 Work Experience and Crafts

a. Pottery

The school sent ten pupils, to attend course on ‘Pottery Preparation’ in Bangalore conducted by Khadi Village Industries Committee from September 1998 to January 1999. After getting training they started a pottery unit in the school. There was a pottery shed having 4 pottery wheels and a furnace. The trained students taught the preparation of pots to other students.

They were preparing the pots of various purposes and selling into those who visit the school at affordable rate. They were giving the pots to the tribal community free of cost and they themselves use the pots for the various purposes of the school. Children painted and decorated the pots, which were being used as flower vase. Pottery preparation is one of the financial resources of the school. At a stretch they could prepare more than fifty pots. Due to the lack of availability of good clay soil they were unable to produce the pots for outside marketing.

b. Greeting Cards

The school was making greeting card for all occasions using grass, leaves in addition to paper. One of the earlier teachers trained them to prepare the cards. All the
children participated in the preparation and each one designs according to one’s creativity. They spent some full days for making these cards during the seasons.

During the last few years they had prepared more than a thousand cards. They are selling these cards at a price of Rs. 10 to those who visit the school and outside people during their programmes. The preparation of greeting cards is also one of the means of financial assistance of the school.

c. Audio-Cassette-Kanavu Ganangal

The school had a cassette in the name ‘Kanavu Ganangal’. It had been recorded and produced since 1994. The director and the children of the school were singing the tribal songs. They had used some traditional musical instruments of tribals and violin, tabala etc.

d. Cover Picture for Cassette

First they themselves screen-printed the name of the cassette and address and the papers were given to each and every child. The children drawn various types of pictures using coloring pencils, water colors etc according to their creativity. They sit together during the afternoon time and draw the pictures. Each cover becomes unique.

They sold this cassette when they went for the programmes and also to those who visit the school. The fund collected is a good means of income for the institution.

e. Sewing

There are two sewing machines in the school. Most of the girls and some of the boys learned sewing with the assistance of elders. They repaired their dresses themselves.
f. Carpentry

The Boys in the school were developing their skill in carpentry works. They were assisting the carpentry works in the school. Students made various handicrafts using bamboo also.

g. The Farm

The school has 6 acres of land. The farm is serving not only as production units but also as auxiliary training centers for the children. The school was using only natural fertilizers. The main crops are paddy and tapioca.

Paddy: Two acres of wetland was used for the cultivation of paddy. Usually paddy cultivation was done twice. The wastewater coming from the kitchen and bathrooms were directed to the paddy field. The farm produces a good portion of rice needed for the institution. If there was any work in the paddy field all the inmates and some of the tribal community people joined together and worked in the field. They used to take for rent the nearby paddy fields and cultivated paddy.

Tapioca: The children worked themselves and produced tapioca. They were keeping the tapioca as dried ones and were used for food during the rainy season.

Rubber: The school has some area with rubber trees in order to train the children in the skill of tapping rubber latex. Most of the senior boys were being trained by one of the elder inmates of the school in rubber utilization and tapping.

The other major cultivation included cash crops like Coconut, Ginger, Areca nut, Coffee and Pepper. Seasonal crops like Bananas, Pineapples, Papayas etc. are also cultivated here by the children.
Vegetables like bitter guard, Beans, Lady’s Finger etc. were cultivated in the campus for their own use.

The children cultivated indigenous herbal plants like Tulasi, Brahmi, Koovarangu etc. Usually children spent time for their farming work during the evening time (5 to 6 pm). The school community used to sent children for training in farming at the Botanical Garden, Periya, Mananthawadi and 3 of the senior students are now getting training in the indigenous medicinal plants and in the indigenous ayurvedic treatment by a group of medicinal researchers.

h. Animal husbandry

There were 3 cows. One bull and 2 calves now. Out of these the bull and one calf were the rare Vechoor species. The senior children trained the smaller children in the skill of milking cows. Usually they use milk as curds. The cows were taken care of by elder inmates of the school.

i. Recycling of Waste Materials

There were three tanks for recycling the waste materials. One tank was kept exclusively for putting non-decaying objects like plastics, glass pieces etc. in the other two tanks one of them was used at a time. Everyday the waste materials from the kitchen and the compound were collected and put into tank. Then the solution of cow dung is poured over this daily. When the tank was filled it was closed and kept for 6 months and these waste materials were converted to fertilizer and was used in the farm. During this time the other tank was used for dumping wastes. The wastewater coming form bathrooms and kitchen were directed towards the paddy fields. The children themselves do the whole works.
j. Distribution of Work

The various items of work in the community were assigned to various groups. For this purpose the children were classified vertically into 7 groups based on their ages, so that each group consisted of children of various ages. The work items were distributed to the 7 groups for a week work would change weekly in a cyclic manner. The main distribution of work was as follows:

1. Cooking in the kitchen  
5. Cleaning the bathrooms
2. Cleaning the vessels  
6. Cleaning the main hall
3. Cleaning the library  
7. Cleaning the dairy farm
4. Cleaning the Kalari

k. Construction of Huts

An elderly tribal man, who was an inmate of the school, was training the children for construction of small huts in the traditional manner. Now the children construct the huts under the supervision of the trained tribal elder. The hut was constructed using the bamboo trees, which were available in the nearby forest.

4.7.8 Center for Training of Arts.

The school gave more importance in the training of arts. The main hall in the school was used to give instructions in music, dance, drama, drawing and painting.

Music: There were various traditional tribal musical instruments and modern musical instruments like Mridangam, Tabala, Triple drum, Harmonium, Violin and Guitar. There were teachers for giving training in these instruments earlier. The tribal people
used to train them in traditional musical instruments. At present there are no teachers for giving training. The elder children who were trained already trained the younger children.

Most of the children were talented in music. Even if they were not talented everybody knows singing. There was a music troupe comprising of the children of the school. This troupe performs dance, music, band, martial art, Kalari etc. The programme was of 2 hours duration. They were doing their performance on various stages in different parts of Kerala and outside Kerala.

Everyday evening from 6.30 to 8.0 clock, the whole group assembled in the main hall with the Director and other inmates and they enjoyed by singing, dancing etc.

The school was giving training in traditional tribal songs, Karnatic songs, Hindustani songs etc based on the interests of the children. They were giving importance to the traditional tribal songs of both tribal groups, Paniyas and Naikkas. For the whole group director taught the tribal songs. The tribal inmates and tribal people coming from the nearby community were also teaching the tribal songs. Tribal songs were selected by the director himself and had given music to the Lyrics.

**Dance:** There is a dance teacher for teaching dances especially Mohiniyatam. Girls practiced the Mohiniyatam. Both boys and girls dance the traditional folks dances of both the tribal group. Those who were interested to practice break dance or any other types of dance they were given opportunity. Sometimes they practiced music and dance from the different countries when foreign visitors visited the school.
**Drawing and Painting**

Drawing, Painting etc are the other major types of arts practiced in the school. Children had given the equipments for drawing and painting. The whole children do drawing and painting based on their interests. The drawings and paintings were exhibited in the main hall. When the children were exposed to some kind of new information for example about forests, birds etc, they used to draw and paint based on their imagination and based on their actual experience. The children used to prepare manuscript magazines based on various subjects. These magazines were full of drawings and paintings. The special noticeable factor was that the children themselves were preparing the cover picture of their cassette “Kanavu Ganangal”. The whole group used to sit together and each of them draw various pictures on the cover based on their interests. They made a wide variety of cover pictures each having uniqueness. This was appreciated very much by the public.

The school was not encouraging to have competitions. So the children have not participated in any competition in arts. Here there was no distinction between talented or non-talented. Everyone was supposed to perform what he or she can in every field.

**4.7.9 Center for Physical and Social Development**

This community organized sports and games in the small playground in the campus played Volleyball, Football etc in the evening for about one hour. The school was encouraging to play for the sake of physical development and knowledge development. For the physical development the complete physical training for boys and girls was obtained from the Kalari classes.
To foster the social and cultural development Picnics and Excursions were often arranged. Excursions to nearby places were coupled with camping and study of the environment and the flora and fauna of the place. For study purpose excursions were arranged to various places in Wynad and other districts in Kerala. The out reach music programme itself was a means of social development. During these trips they were getting opportunity to interact with many people and see many places. To study about the history of Wynad they visited all the Panchayaths in Wyand District. During these visits they build up a thorough knowledge about the boundaries of Panchayat, important places, institutions, organizations etc. The students prepared records of their tours and made maps and pictures. There was no N.C.C., M.S.S. or Scout.

4.7.10 Center for Meditation and Yoga

The school gave high importance for the practice of meditation and yoga, for the spiritual upliftment. A day at the school started with yoga or Kalari for 1 to 2 hours. Usually the “Kochumakkal” (small children) practiced yoga in the morning. Others practice yoga adjusting with Kalari. There was a separate hut for the practice of yoga. The director himself trains them in yoga. The yoga practiced there is meant for the proper functioning of body and mind.

Everyday after the breakfast the whole group assembled in the main hall for meditation for one hour. The director or some other elders in the school lead them through meditation. The mediation practiced there was based on the idea of the director from his own life experiences. The meditation was strict for every inmate. The meditation practiced here was intended to increase the mental power, to increase the concentration etc. the aim of practicing the meditation is to build a disciplined mind in the children. Only after meditation the children used to go for study. They
were also asked to practice the meditation personally before going to bed and after walking up. Once in a month or two communities used to have meditation for 2-3 days in the forest.

The curriculum in the school stressed more on non-cognitive aspects than any other formal school curriculum. The major problem of poverty faced by the tribal children for their education found a solution through the policy of earning while learning in the school through productive works, crafts, arts, music programmes, working in field etc. The various activities and programmes served as the means of rich educational experience as well as a means of financial support for the children. The importance given in Kalari, yoga, meditation and other physical activities helped in the balanced development of body, mind and spirit, and which in turn made them self-confident to face life problems.

It was noted by the investigator that due to the great importance, time and attention devoted to these activities, stressing the non-cognitive areas/experiences, perhaps not enough attention was given to the cognitive areas, which they deserved.

4.7.11 The curriculum in the school: Cognitive Aspects.

The school did not follow any fixed or structured curriculum. The curriculum followed in highly flexible. They did not follow any textbooks or syllabus. They were mostly depending on library books, mass medias like television internet and radio, group discussions, camps, classes taken by visitors, contact with other teachers and eminent persons etc for the cognitive development of children. There were teachers for each subject till 1998. At present there are no teachers for curriculum transaction. They were now doing the curriculum transaction through self-study, group discussion, peer group teaching by the senior students. The curriculum included the three
languages Malayalam, English and Hindi and more emphasis to tribal languages. It included various subject areas like Science, Social Science, and Mathematics.

**a. Language**

During the initial stages more emphasis was given to the tribal languages of both the Paniya and Naikka community. They were allowed to speak the tribal dialects in the community. Later it was slowly switched on to the regional language Malayalam. Then the emphasis was laid to explore the English language. For the improvement of English language various strategies were adopted. The student Exchange Programme is one of the means to explore the English language. They got a good exposure to the National language Hindi. The visitors and the North India were giving help to expose the children to the Hindi language. The journey’s for conducting the cultural programmes in the different parts of the country exposed the children to various languages in India. The interaction with the foreign visitors was another way for developing English and other language planned here for the improvement of Hindi language.

**b. Other Subjects**

There were special trained teachers for the various subjects. But for the last eight years there were no teachers for transacting the subject areas. The learning of Social sciences began with the learning of the history of Wynad and history of their own tribal society. This had extended to the history of Kerala, then India.

The learning of Science and world history was done mostly through the exploration of nature. An in depth study of the various areas of sciences like the physics, Chemistry and biology were not yet done. Mathematics also had not gone to
the depth and to the level of other students in the formal school. The school was focusing on the basic element of the various subjects, which are life oriented and given basic step to the deep study of the subject.

The school was not giving high emphasis to the subject areas. They stress the concept of developing the ability in different languages. Though the exploration in the languages, The school expects that the child could learn the subject areas independently with some guidance. Those who were interested.

c. Curriculum Transaction in the School

For the transaction of curriculum the whole group of 42 students were divided horizontally into 3 or more groups based on the age and ability. The division of the children into groups would be flexible according to their mental capacity, skills, talents and age. Generally the first group included the students who were preparing for the secondary examination conducted by National Open School, New Delhi. The second group included students around age of 11-13. The third group consisted of 15 younger students with age range 4 to 10 years.

Usually the first group of students would be preparing for their secondary examination under the guidance of the director. The second group was engaged in learning English by the assistance of visitors during the time of data gathering by the investigator. Usually they prepare lessons on different areas using the library and were engaged in discussions with the senior students of age around 16-20. During the visit of the investigator for data gathering, he observed that the smaller children were divided into different groups of size 3 to 4 members and were taught different subject areas by the senior students by sitting in the huts, working through the campus walking through the forests etc. in the afternoon, usually the children will be engaged
in self study, reading books in the library, clearing the doubts etc. but during the time of stay of the present investigator, the whole group was attending Hindi classes taken by the visitors from North India.

At the end of the day after the supper, the younger ones were allowed to go to bed. The other two groups join together with the Director and discussed about what they learnt that day and would have discussions on various subjects, clearing the doubts and preparing for the coming day.

d. Classes Taken by Visitors

The Director of the school was very particular to make use of the potentialities of visitors for the benefit of his pupils. Anybody who comes there is asked to talk to the children. One may perform music, art or dance. The pupils would share their experiences. On many occasions persons from different fields visited the community. This included the traditional Adivasi elders to people from foreign countries. They would share their experiences with members of the school. These conversations were contributing much to the knowledge of pupils. Another feature was that there was no inhibition for the children to make conversation with the visitors because of their experiences. During the time of data gathering at the school by the investigator, one eminent person from North India was staying there for a period of 3 months for teaching the students English and Hindi.

e. Contact with Other teachers and Eminent Persons

The students in the school kept good contact with eminent persons and teachers whom they met through letters and other means. They clear their doubts in
subject’s areas; gather new information etc from these persons. The contact extends even to other countries also. They contributed a lot in the learning process.

f. Camps and Workshops

The camps and workshops on various subject areas or societal problems were done in the school as well as in other places for the inmates. Sometimes the camps would be in the forests. They used to have camps to explore the natural environment in the forests. They used to have camps to explore the natural environment in the forest i.e., to study about birds, plants, trees etc. eminent persons in various subject areas conducted this type of camps and workshops. They used to have workshops on various societal problems. People who were working in various fields of the society came and had classes, group discussions, workshops, etc. the workshop on “Narmada Bajao Antholen” was one of them.

The school welcomes other students from the formal schools to attend various camps. The Director, together with the children of kanavu, would conduct the camps for the outside children. There would be group discussions, debates, seminars, activities etc during these camps. Training programmes for teachers in DPEP curriculum were done in the school.

g. Writing in Manuscript Form

The school encouraged pupils in writing, drawing, painting etc to develop their creativity. After having exposure to various subject areas and non-subject areas the pupils themselves write stories, articles, poems etc and draw various pictures. These were collected together and they had prepared many manuscripts books. Some of the manuscript books in the school were “Kanavu Chetham” in which they have
made beautifully the description about the school and Tribal community and its various activities. Other one was the “Prakruthiyude Sangeetha Soundrayam” in which they narrated about the birds in the forests and their beauty. After having learned about the stars, sky and solar system they prepared a book named “Manathe Poovukalku” where they narrate the beauty of the sky and the celestial objects.

h. Examination and Promotion

No Systematic examinations were conducted for the students. The evaluation of the students was done in a continuous manner. The ability of each student was assessed by systematically observing the child by the Director assessing their ability, reports by the peer groups in their performance etc. if one student was excellent in one area he may not be competent in other subject area. So the grouping would be changed for each subject. So the promotions were done in each subject based on the attainment of the competencies.

4.7.12 Preparation for public examination

The school, with their innovative practices did not have the idea of sending their students for public examinations. Rather, they had the idea of developing various life skills among the children. In order to get into the main stream for higher studies in various fields the school now offers the students to attend for the public examinations conducted by National Open School New Delhi.

The school opted National Open School for Public examinations due to various reasons:
(i) The flexibility and innovative ideas of curriculum for developing skills in various subjects rather than to collect unrelated information for the sake of certificate without lowering the standards attracted the school.

(ii) The entry qualifications are not rigid in the National Open School. As most of the children in the school have not studied in other regular schools or Government recognized schools the enrolment in other Boards of Education are difficult. The restriction about age for admission to NOS is also not rigid.

(iii) The period of study offered by National Open School avoids the stress or learning fast' which the school always opposes.

(iv) The flexibility in the place of study

(v) The flexibility in the section of subjects gives an opportunity to study interested internal subjects only, which no other Board of Education offers. This provides an opportunity of selecting the subjects on their interests for the inmates.

(vi) The learning materials which comprise the Self Learning Materials and audio-video programmes helps the children to adapt self learning, which the school follows for last two years.

(vii) The study centers: The school have no facility for doing practical. But the study center of National Open School gives an opportunity to do practical also. They also provide guidance in the study through the Personal Contact Programmes.
(viii) As the NOS offers ten chances for writing each subject and the opportunity to clear each subject separately helps them to take the examinations as and when they are ready for them.

(ix) After the public examination in secondary level the children can also appears for senior secondary level examination of National Open School itself.

(x) As the medium of study in English, the schoolchildren are getting more exposure to English language.

(xi) As the children in the school prepare for the examination as a group the self-study, discussion and other activities can be do easily. The validity of the certificate is there for higher studies all over India.

(xii) The lack of teachers, lack of text books, lack of laboratory facilities, lack of systematic evaluation, the less importance given to the in depth study of the various subjects (Science, Mathematics etc) may lower the level of cognitive achievement when compared to other children in formal schools. But the overall system of education and the variety of educational experiences given to tribal children in the school appears to be very relevant, and useful for the children especially in the context of the life of the community from where they come.
4.7.13 Physical Facilities

a. Library

The investigator observed the facilities available in the library. There was a separate building for library that was constructed 7 years ago. Open library system was maintained here. There were about 5000 books in the library of various areas like History, Politics, Literature Arts, Poetry, Economics, Science, Mathematics, Philosophy, and Psychology etc in three languages, Malayalam, English and Hindi.

**Arrangement of Books**

The children themselves arranged the books mainly into two sections. The reference section and loan section.

**Library System**

No trained librarian was appointed for running library. No library advisory committee was there. An elder girl who is an inmate of the school was incharge of the library and maintains the activities of the library. There was register to note the data of issue and date of return. All the students were allowed to take books at any time. There was facility for reading the books in the library itself also.

The Director and other elder inmates of the school helped the children to select the books of their interest and their level.

**Utilization of Books**

The school gave more importance in reading books, as it was the main source of information for the children. Students were allowed to take books of their own
interest and they can spend as much time as possible to read books the children selected different topics and books were taken based on the topics and prepared notes and the acquired information was transmitted to other inmates.

b. Laboratory

There was no Science laboratory at present. Only some teaching aids were their which are kept in the library. Sufficient equipments to learn Science through demonstrations and experiments were not here.

c. Mass Medias

The school had a Television set with video cassette recorder. They had a collection of educational films got from Kerala and from foreign countries. The children used to see these films on Sundays. They used other medias of Radio, Tape recorder, and News Paper etc as means of education. There was a collection of educational audiocassettes also. They have a computer with Internet facilities.

d. Vehicles

The school has a jeep and 3 bicycles. The smaller children were being trained for riding the bicycles. The newly bought jeep was used as means of transport. In addition to this the senior children were being trained for driving the jeep.

f. Electricity in the school

There was no electric supply from outside. The school had a solar panel of power 1000 Watts. The District Panchyat Committee of Wynad contributed this for the school. The solar panel was kept at the top of the main building. Children
themselves maintained this properly. This solar panel supplied the current needed for
the working of all electrical devices in the school.

g. Water Supply in the School

Drinking water was available from well. The electric motor works with the
current supplied by the solar panel. Water for irrigation purpose was obtained from
the river Narasi. There was a diesel motor that was contributed by the local District
Panchayat for irrigation purposes.

4.7.14 The Link with the Community Around the School

The school is situated in the village Nadavayal in Wynad district. The
community around the institute included both the tribal community and the non-tribal
community. The school kept in good touch with both communities although the pupils
were from the tribal community only. People from both the communities used to
come there for various activities.

A lot of families of non-tribal community were residing around the institute.
The children and parents of these families used to visit the school and took part in
various activities. Some people contributed financial assistance to the institute.

The tribal community around the institute had a deep relationship with the
school. The pupils who were studying in this school are from the nearby tribal
communities. Even before the starting of the school, the Director and his family had
intimate contact with the tribal community. After starting the school also it became a
part and parcel of tribal community.
During the initial stages the inmates of the school used to visit the houses of
the children once a week. They used to conduct meetings of parents once a month and
sometimes this meeting extended for one or two days with plays, classes, discussion,
cultural activities etc. They used to get the opportunity to know about the progress
and development of their children. This practice of meeting once a month or two
continued now also. Earlier the school used to conduct camps for 2 to 3 days and
tours to different places for the parents free of cost. Although there was no Parent
Teacher Association officially the above meetings and activities fostered proper
relationship between the school and the surrounding community.

The elder people from the tribal community used to come here and transmit
their knowledge, which include tribal history, tribal songs, traditions, knowledge
about the medicinal plants, forest, birds etc. During the time of harvesting the school
invites the parents for participating. The parents will come and help in the harvesting
and other agricultural work. Along with the parents the younger ones also come to the
school. This visit prompts these younger ones to join in the school and learn. When
there is any marriage celebration in the tribal community, they will invite the inmates
of the school. The Director and his family used to go there and participate in the
celebrations. During the marriage celebration or other functions in tribal community
the school used to present rice or other agricultural products. From the tribal
community during their harvest time, they used to contribute agricultural products to
the school.

The school gave first priority for the upliftment of the children. Though the
children in the school was planning to wipe out the superstitious beliefs and practices,
which were practiced by the tribal community. The tribal community felt that their
children were safe in the school and that they were attaining something worthwhile from the school.

4.7.15 Student Exchange Programme

Student Exchange Programme is an unique innovative experiment started in the school before 6 years. The student exchange programme is the programme in which a batch of students from the innovative school were sent for study in another alternative school, The innovative students of Bangalore for a period of six months and in reverse a batch of students from Bangalore were sent to the innovative school for a period of three months.

The idea of Student Exchange Programme came when the Director of both the institutes happened to meet each other in a discussion meeting of National Open School examination. They discussed about the innovative ideas they were practicing and they decided to do the innovative experiment of Student Exchange Programme.

The major objectives of this Student Exchange Programme was

(i) To get an exposure to the English language especially in speaking with fluency.

(ii) To get an opportunity to live together without any compulsion.

(iii) To have an exposure to mingle with people of different cultural background.

(iv) To exchange various ideas, knowledge, etc between the two institutions.
(v) To participate in the preparation for NOS examination with the students from Bangalore.

While selecting the school for Exchange Programme, the major criteria was that the school should have similar innovative ideas like the innovative school which the researcher intended to study and it should have a mind to understand and recognize each other positive aspects.

a. The Programme

As an experiment in the field of education, the branch of students from the school accompanied by the Director and his wife joined with the educational experiments in innovative school of Bangalore. They took a house on rent near the school. The students alone were staying together in the house and followed the same timetable they have in the school. They divided the works among themselves and lived there in a disciplined manner.

The students from innovative school of Bangalore itself were a mixture of different cultures. There were students of varied cultures like Parcies, Jains, Punjabies etc. So there was no problem of adjustment between the two groups of students. In the first two months the innovative school students felt difficulty in mingling as they lacked fluency in English. But the students from Bangalore helped them to improve. By the mutual interaction between them the innovative school students improved themselves in English and the problem of language almost vanished.

The teachers and parents of students in Bangalore helped the innovative school students to develop further educationally. The teachers helped them in their difficulties in various subjects.
b. Objectives of the Programme

The programme was intended for the benefits of the batch of students from Bangalore. The major objectives of this programme was:

i) To provide an opportunity to mingle with people of different cultures

ii) To see the life of the Keralite students and have an experience of it.

iii) To see the life of tribal people and to have an experience of their customs and culture.

iv) To learn the cultivation of agricultural products especially paddy cultivation.

c. Criteria for Selection

The batch of students who participated in the programme was the batch of students in the 5th grade of Bangalore. There were 4 boys and two girls.

d. Major Aspects of the Programme

This programme is the continuation of the first programme. In this programme the children from Bangalore are living with the innovative community of Kerala. They are fully participating in the various activities of the community. The main aspect is that the batch of Bangalore students is living in a residential school first time in their life quite far from Bangalore. That itself is an experience and a challenge for them.

In innovative school of Kerala these children are learning Kalari, Meditation, Yoga, Horse riding, Jeep driving, Pottery making, leaning Malayalam etc. they got the opportunity to read the variety of books in the Kerala school library. The children
from Bangalore are teaching the smaller children in Kerala various subject areas in English. This exposes the smaller children in innovative school of Kerala to English. There is no fear or discomfort in speaking English. The Keralite children consider this as an opportunity and they try to mingle and speak as much as possible in order to develop the ability in the English language.

Another major aspect of this programme is working in the agricultural farm. The Keralite children are teaching the various works in the agricultural farms. They teach them the cultivation of different plants, vegetables, coffee plucking, turmeric plucking etc. The cultivation of paddy in innovative school in Kerala was done this time with the purpose of teaching paddy cultivation to Bangalorian students. The students from Bangalore are learning and experiencing the cultivation of paddy along with the students from Kerala. Similarly the students from Bangalore are getting opportunity to learn from nature, to see the forest, to study in forest etc., these children used to go to the houses of the tribal community to have cultural interaction between them. The life style, the food habits, the customs etc are learned from direct experience.

The children from Bangalore are also accompanying the music programme conducted by children from Kerala at various places. They also participate in the dances, music etc. They are also learning the different musical instruments including traditional ones. These travels in Kerala are a means of educational and cultural interaction. They are getting opportunity to interact with people in different parts of Kerala, and to see the different place in Kerala. The interaction with the various who are visiting innovative school in Kerala is also means of widening their horizon.
e. Educational Interactions

The school students attended the classes by sitting in classes from lower grade to upper grade for each subject. The group divided into different grades for different subjects based on their level. They attended the classes on various subjects based on their level. In the case of English, at first the whole group attended classes in the lowest grade. Then they moved from lower grade to higher grade based on their improvement during these periods.

The students from innovative school of Kerala got opportunity to learn different languages like Hindi, Kannada etc., as they interacted with the students of Bangalore and other people whom they contacted in Bangalore. They got another opportunity to prepare for National Open School Secondary examination along with the senior students from Bangalore who were preparing for the same. One student from the school who took Science as optional got facility for doing practicals in Bangalore.

The Bangalore students taught various English songs, different Drawings etc. Most of the children in innovative school of Bangalore have personal computers in their homes. They also taught the Thykondo, the marital art of Korea to the students.

The laboratory, library, the play activities, discussions, the visits to different places etc., were means of educational interactions during this programme.

The students from the school taught Kalari during the weekends to students from Bangalore. They were able to contribute what they had experienced in their life situations in various subjects.
The major educational gains in students out of this programme are:

- The students who participated in the programme are now confident in speaking, reading and writing English properly.
- They got a thirst for acquiring more and more knowledge.
- They stayed together in Bangalore (an entirely new place) for a period of 6 months in a rented house. After the school hours in innovative school of Bangalore they cooked their food, cleaned and attended to other daily chores as per the same schedule / time table which they used to follow at the school but without any supervision of their Director. The Director continued to be in the school with the other students and used to pay periodical visits to the residence of 8 students in Bangalore. Thus they stay in Bangalore, on their own helped the batch of students to manage their affairs with confidence and to live with self-discipline.

f. Cultural Interactions

The students in innovative school in Bangalore themselves form a group of varied culture. So there was an opportunity for the interaction with the new culture of the student’s from innovative school in Kerala that was entirely different. The students from Kerala have their own tribal culture and as a group they have the common culture of their community. The inmates of innovative school of bangalore considered this as an opportunity to interact with the students of Kerala and to enrich mutually.
The students from Bangalore taught them Music, Painting, Drawing, Clay Modeling etc which they were studying. While in turn the students from Kerala performed the Music Programmes, the Dramas, the Dances etc. they even taught there the tribal music’s, dances both tribal and modern mohiniyatam. Both the groups conducted their own cultural programmes, which provided a means of cultural interaction and enrichment.

The students from Kerala went to the houses of students from Bangalore and stayed there for some days. Their life style, food habits, dressing patterns religious practices etc opened their minds to a new world and enabled them to understand and appreciate their life pattern and culture which differed from theirs. By these days of mingling the students from Bangalore became friends of Keralian students. This widened their outlook and helped them to appreciate the life style and culture of the students from the hilly district of Waynad in Kerala.

The participation in the discussion regarding the construction of the new school building of Bangalore innovative school was another means for cultural interaction.

The students from Kerala contributed their own ideas and suggestions and they taught them the construction of small huts in the traditional manner.

The future life expectations of the both groups are extremely different and this was also a means of cultural interaction. The aspirations and new expectations in life came up in both the groups during discussion and other interaction.
Some of the major behavioral outcomes due to cultural interaction are as follows:

➢ Both the groups of children developed the love and respect for different cultures.

➢ They were able to accept the good and useful elements in different cultures. This might lead them to adopt and practice those things in real life.

➢ It is hoped that they developed the attitude to see people without a hierarchical order of culture, that is, without labeling superior or inferior.

➢ They got an opportunity to differentiate the city life and life in a village.

During the programme the students from Kerala got opportunity to meet with people working in different fields of life, people with innovative ideas, people who are working for the society etc. They got the chance to participate in the ‘Narmada Bachao Andolan’ Programme and to interact directly with the people who are working in this programme.

The main aspect of this Student Exchange Programme is that the visiting batches of students are not considered as tribal children but as children and coming from the innovative school. This developed the feeling of self-respect in students, reduced the inferiority complex of being tribal children which they might have had.

After completing the programme the batch of students came back to Their School and they began to speak, read and write English with more confidence. They
are teaching English to those who were not able to participate in the Bangalore programme.

g. Future Plan about Student Exchange Programme

Based on the various outcomes of the new experiment in Student Exchange Programme, the innovative school community of Kerala extended the innovative institution of North India programme to different innovative institutions at different places. Especially the community conducted this programme with formal schools also. But the exchange programmes between the schools were done only with innovative school. The students from the formal schools used to come to the innovative school during vacation for exchanging ideas. The exchange programme conducted with students from Bangalore was the first and the wider programme by innovative school of Kerala. The other exchange programmes were limited to batches of 2 on 3 students only.

4.7.16 Kalari- in the innovative school of Kerala

Kalari is a form of martial art practiced in Kerala from ancient times. The world Kalari came from the Sanskrit word ‘Kalooria’. It means the place where all types of education are given. Kalari has its historical background form the existence of Kerala itself.

The tribal communities have their own historical background related to Kalari. One of the tribal communities in Wynad area is the “Kurichya” community. They were the people who were the chief military force of king Pazhassi who ruled Kerala once upon a time.
Innovative school of Kerala started the Kalari wing during the year 1996. Acharya P. Vasudevan Gurukal from C.V.N. kalari, Kottayam was the guru during the initial stage.

Kalari had its own rituals and traditions. There are mainly two types of Kalari. They are the "Thekkan" and the "Vadakkan", meaning the southern and the northern tradition of Kalari respectively. In Kerala mostly the Vadakkan is practiced. In Kanavu the Vadakkan type of Kalari is being practiced.

In the school they have constructed a 21 x 42 Kalari plot (a type of measurement in Kalari) with its level beneath the surface level of the land. The investigator observed the Kalari practice both in the academy and in the outreach programme.

a. Objective in Teaching Kalari in the innovative school

The school gave training in Kalaripayattu to its inmates based on certain objectives. The main objective was to improve the concentration of the mind. The second objective was to have good physical fitness. The third objective behind this was self-defense of individuals. Basically the tribal children had a destructed mind of slavery. The Kalari would help them to have self-confidence. The school had sent the senior students to have training to become the Guru in the Kalari. The senior students were giving the Kalari practice to the junior ones.
b. Link Between Kalari and Other Areas.

Kalari and physical Education:

One of the main objectives of practicing Kalari in the school is to have a sound body and it gives very little emphasis to the usual type of educational activities like sports, games etc. so Kalari replaces the part to be played by the physical activities.

Kalari and Academic Subjects:

Due to the regular practice of Kalari the inmates of the school were far from diseases. They had a sound body and sound mind. Kalari had developed the concentration power of the inmates; which results in concentrating in the studies.

Kalari with Yoga and Meditation: even though there is some relationship in the movements of Kalari with Yoga there is not direct link between Kalari and Yoga.

Some of the movements in Kalari are correlated with Meditation. The Meditation practiced in the school helps to foster the Kalari practice of the students. Here on some days Medtiation replaces Kalari.

c. Kalari Beyond the school: The school has an outreach programme of 2 hour’s duration on its own performed in different parts of Kerala and outside. One of the main items of the programme was Kalaripayattu. The children perform Kalaripayattu in the stage using weapons also during a year the institution had more than 200 programmes both in Kerala and other states. During last year itself the school had done 40 programmes in Bangalore itself. The school conducted workshops, camps etc for other students at different places about Kalari. So the school was giving wide
publicity to this martial art among people, which no other institutes could do earlier. So the people were getting an awareness and appreciation on regarding this martial art.

d. Tribal Community and Community Around:

The minds of the tribal children are destructed and broken due to the years of slavery by other people. The Kalari had created a confidence and courage full mind among the children.

The community around is getting opportunity to get training in Kalari.

4.7.17 Innovative Practices Followed in the Innovative Flexible Curriculum School

On the institutional profile and interviews conducted with the Director, the teachers and students, the investigator could found that the following are the innovative practices followed in the school.

1. The school community gives greater importance to Work Experience, Crafts, Music, Dance, Kalari, Meditation and yoga when compared to the study of subjects like Science and Mathematics. They earn money for learning through the productive works, crafts and arts, since other sources of financial assistance are very less.

2. The various educational and economic based productive works and crafts practiced in the school are pottery preparation, greeting cards, cover picture of cassette, sewing, carpentry works, animal husbandry, farming works including working in the paddy fields and tapping of rubber, construction of huts etc.
3. The different arts practiced in the school which give recreational value as well as financial assistance are music programmes, dance programmes, drawings, paintings etc. based on traditional and modern themes.

4. For the balanced development of body, mind and spirit the school spend more time in Kalari, Yoga and Meditation and there are sufficient facilities for these. Sports and games are given less importance. Facilities for sports and games are insufficient.

5. There is no structured, curriculum, no specific text books or syllabus, no teachers for teaching and no fixed time table. The curriculum in this school is highly flexible and the curriculum transaction is done by the guidance of Director and his wife through the activities like reading library books, group discussions, debates, self learning, peer group teaching, classes taken by visitors, manuscript writing, mass media, camps, workshops, visits to various places and contact with other teachers and eminent persons.

6. The school is giving more emphasis to the tribal dialects in the initial stages of education and as a medium of conversation among pupils. The curriculum includes the languages Malayalam, English and Hindi and subjects Science, Social Science and Mathematics. But in this school emphasis is given more to learn different languages and not on subject areas.

7. The grouping of the children is done based on the mental capacity, talents, age and mastery over the competencies and skills. The grouping is flexible in nature and at present there are three groups as against the system of classes in ordinary schools; Standard 1, Standard 2, Standard 3, Standard 4 etc.
8. The evaluation is done in a continuous manner and is done by systematic observation, assessment of abilities, reports by the peer group who are teaching etc. There is no systematic examination as found in other schools.

9. The fund for the functioning of the institution is gathered through the sources like, the public programmes by the whole group, the agricultural products, handicrafts, pottery, audio-cassette, greeting cards, the fund from government for the Kalari academy and contributions by well wishers. The community lives a simple life.

10. For the first time, a batch of students of this school have been registered and are preparing for appearing in the public examination conducted by the National Open School, New Delhi in secondary level, through their Accredited Institution in Bangalore. This public examination is more flexible compared to state SSLC but is recognized as equivalent to SSLC for purposes of higher studies.

11. The flexibility in time, subject areas, age limit, entry qualification, place of study and number of appearance, etc and the various facilities offered by the national open school are very suitable for the tribal children in the school for appearing for a public examination.

12. The preparation for the public examination is done with the assistance of the Director’s wife through various strategies like learning through self learning materials, audio video programmes, peer group teaching, using of library books, contact with external teachers, doing practicals in other formal schools, and Student Exchange Programme.
13. The school maintains good relationship with the tribal community around through various means like conducting parents meetings once in a month, allowing the parents to stay with the children in the school, classes taken by tribal elders on various aspects of tribal culture, participation of tribal parents in the agricultural works of the school, mutual help of financial assistance in need etc. The school took no initiative in adult literacy programmes. It is concentrating on the education of the young tribal children who have come to the school.

14. The school keeps good contact with other non-tribal community through various means like the participation in Kalari Academy and traditional medical and treatment provided in the academy, public programmes, mutual transaction of financial assistance etc.

15. The Student Exchange Programme between the innovative flexible curriculum school and Poorna, Bangalore, a new experiment in the field of education has contributed to this school children in various outcomes like; high exposure to reading, writing and speaking skills in English language, love and respect for different cultures supplementing the preparation for National Open School Public Examination doing practicals, using computer, gathering study materials, clearing of doubts from Poorna teachers, enrichment in self-formation, transmission and transformation of new knowledge ideas, skills etc.

16. All the pupils in the school are getting training in the martial art Kalari. And there is a well trained teacher. Through the practicing of Kalari the children are developing properly with a sound body, sound mind, courage and concentration power in studies.
17. The wing of Kalari in the school has been raised as one of the six Kalari Academies in Kerala and this resulted in the financial assistance, attitudinal changes of public about the Kalari wing in the school and participation of the local community in the activities of the school. The Kalarippayattu included in the public programme of the school resulted in the high publicity of Kalari in Kerala and abroad.

18. Thus the school provide more importance to train the children in developing a unique and highly creative personality to think differently, to do differently, to write differently, to draw differently, to act differently, to work differently, to live differently.

4.7.18 Conclusion

When compared to the curriculum in the CBSE and State schools the curriculum in this school gave less importance to the cognitive aspects when compared to non-cognitive areas. But the difference in approach followed in the transaction of the curriculum was noticeable; the high flexibility, the importance given to tribal dialects, the exploration of the tribal culture, custom, history etc. The emphasis on spiritual awakening i.e. attain self actualization through Meditation and Yoga, the importance given to link education with the community, culture, and life skills, learning of different languages and development of language skills and relationship with people, full participation of the students in all the educational activities, emphasis on self reading through library books, peer group teaching and exchange of knowledge and culture through student exchange programme are innovative aspects in the field of elementary school education. Also this school provide more importance to train the children in developing a unique and highly
creative personality to think differently, to do differently, to write differently, to draw differently, to act differently, to work differently, to live differently. The new approach of giving emphasis to tribal dialects in the initial stages of education and then switching over to other languages can be adopted as an approach for the language learning of tribal children.
4.8. COMPARISON OF INNOVATIVE FLEXIBLE CURRICULUM SCHOOL WITH CBSE AND STATE SCHOOLS

To compare the effect of innovative practices on the various Life Skills i.e., communication skills, creative thinking and interpersonal relationship of innovative flexible curriculum school with the CBSE and state schools descriptive statistics and one-way Analysis of Variance (ANOVA) followed by Post Hoc analyses are used.

4.8.1.CREATIVE THINKING

4.8.1.Total Creative Thinking

Table 4.23 Descriptive statistics of students of selected schools on Creative Thinking

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>149.98</td>
<td>38.21</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>144.16</td>
<td>47.19</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>97.94</td>
<td>26.81</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>74.06</td>
<td>22.33</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>266.80</td>
<td>79.63</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td>125.11</td>
<td>54.90</td>
</tr>
</tbody>
</table>

It is observed that the mean score of students in the Innovative Flexible Curriculum School is the highest. On the other hand the mean score of students in the Conventional State School is the lowest. The students in the Innovative Flexible Curriculum School also have scored maximum variance, whereas Conventional State School secured very less variance. The students in the CBSE Schools are in the middle score. From the table it is clear that the students studying in Innovative
Flexible Curriculum School have more score on creative thinking and the students studying in the Conventional State School have the least score on creative thinking.

The significance of the mean scores of students of Innovative Flexible Curriculum School with CBSE and State Schools on creative thinking was obtained using the following hypothesis.

**Hypothesis 1.0.3**

There is no significant effect of innovative practices on the creative thinking of students from innovative flexible curriculum school and students from CBSE and State Schools.

To test the above hypothesis the one-way Analysis of Variance (ANOVA) followed by Post Hoc test is used. The summary of ANOVA table is shown below.

**Table 4.24 ANOVA table for creative thinking and the selected schools**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>250742.56</td>
<td>4</td>
<td>62685.64</td>
<td>44.388</td>
<td>0.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>210418.56</td>
<td>149</td>
<td>1412.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>461161.12</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4.25  Post Hoc Tests (Scheffe) for creative thinking and the selected schools

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>N</th>
<th>Subset for alpha =0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>74.06</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>97.94</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>144.16</td>
</tr>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>149.98</td>
</tr>
<tr>
<td>Innovative Flexible</td>
<td>5</td>
<td>266.80</td>
</tr>
<tr>
<td>Curriculum</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The findings in the ANOVA followed by Post Hoc Tests in the above tables reveal that F value was found to be highly significant for the innovative flexible curriculum school students when compared to other four schools. Thus the null hypothesis is rejected.

It is found that the mean scores for the creative thinking of the innovative flexible curriculum school students were highly significant when compared to state schools and it has a significant difference with the CBSE schools also.

Hence it can be concluded that innovative practices followed in the innovative flexible curriculum school has significant effect on creative thinking.
4.8.1.1. Verbal Creative Thinking

Table 4.26  Descriptive statistics of students of selected schools on Verbal Creative Thinking

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>92.74</td>
<td>34.01</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>93.22</td>
<td>41.36</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>41.68</td>
<td>20.22</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>25.47</td>
<td>17.98</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>186.40</td>
<td>75.71</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td>70.64</td>
<td>48.65</td>
</tr>
</tbody>
</table>

It is observed that the mean score of students in the Innovative Flexible Curriculum School is the highest. On the other hand the mean score of students in the Conventional State School is the lowest. The students in the Innovative Flexible Curriculum School also have scored maximum variance, whereas Conventional State School secured very less variance. The students in the CBSE Schools are in the middle score. From the table it is clear that the students studying in Innovative Flexible Curriculum School have more score on verbal creative thinking and the students studying in the Conventional State School have the least score on verbal creative thinking.

The significance of the mean scores of students of Innovative Flexible Curriculum School with CBSE and State Schools on verbal creative thinking was obtained using the following hypothesis.
Hypothesis 1.1.3

There is no significant effect of innovative practices on the verbal creative thinking of students from innovative flexible curriculum school and students from CBSE and State Schools.

To test the above hypothesis the one-way Analysis of Variance (ANOVA) followed by Post Hoc test is used. The summary of ANOVA table is shown below.

**Table 4.27 ANOVA table for verbal creative thinking and the selected schools**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>202141.61</td>
<td>4</td>
<td>50535.402</td>
<td>47.045</td>
<td>0.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>160055.75</td>
<td>149</td>
<td>1074.200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>362197.36</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 4.28 Post Hoc Tests (Scheffe) for verbal creative thinking and the selected schools**

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>N</th>
<th>Subset for alpha = 0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>25.47</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>41.68</td>
</tr>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>92.74</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>93.22</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>186.406.</td>
</tr>
</tbody>
</table>
The findings in the ANOVA followed by Post Hoc Tests in the above tables reveal that F value was found to be highly significant for the innovative flexible curriculum school students when compared to other four schools. Thus the null hypothesis is rejected.

It is found that the mean scores for the verbal creative thinking of the innovative flexible curriculum school students were highly significant when compared to state schools and it has a significant difference with the CBSE schools also.

Hence it can be concluded that innovative practices followed in the innovative flexible curriculum school has significant effect on verbal creative thinking.

4.8.1.1.1. Fluency of Verbal Creative Thinking

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>36.17</td>
<td>9.49</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>38.38</td>
<td>12.87</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>20.53</td>
<td>9.63</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>11.53</td>
<td>7.87</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>48.20</td>
<td>15.45</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td>28.54</td>
<td>15.25</td>
</tr>
</tbody>
</table>

It is observed that the mean score of students in the Innovative Flexible Curriculum School is the highest. On the other hand the mean score of students in the Conventional State School is the lowest. The students in the Innovative Flexible
Curriculum School also have scored maximum variance, whereas Conventional State School secured very less variance. The students in the CBSE Schools are in the middle score. From the table it is clear that the students studying in Innovative Flexible Curriculum School have more score on fluency of verbal creative thinking and the students studying in the Conventional State School have the least score on fluency of verbal creative thinking.

The significance of the mean scores of students of Innovative Flexible Curriculum School with CBSE and State Schools on fluency of verbal creative thinking was obtained using the following hypothesis.

**Hypothesis 1.1.1.3**

*There is no significant effect of innovative practices on the fluency of verbal creative thinking of students from innovative flexible curriculum school and students from CBSE and State Schools.*

To test the above hypothesis the one-way Analysis of Variance (ANOVA) followed by Post Hoc test is used. The summary of ANOVA table is shown below.

**Table 4.30 ANOVA table for fluency of verbal creative thinking and the selected schools**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>19633.891</td>
<td>4</td>
<td>4908.473</td>
<td>45.852</td>
<td>0.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>15950.551</td>
<td>149</td>
<td>107.051</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35584.442</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4.31 Post Hoc Tests (Scheffe) for fluency of verbal creative thinking and the selected schools

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>N</th>
<th>Subset for alpha =0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>11.53</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>20.53</td>
</tr>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>36.17</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>38.38</td>
</tr>
<tr>
<td>Innovative Flexible</td>
<td>5</td>
<td>48.20</td>
</tr>
</tbody>
</table>

The findings in the ANOVA followed by Post Hoc Tests in the above tables reveal that F value was found to be significant for the innovative flexible curriculum school students when compared to other four schools. Thus the null hypothesis is rejected.

It is found that the mean scores for the fluency of verbal creative thinking of the innovative flexible curriculum school students were highly significant when compared to state schools and it has a significant difference with the CBSE schools also.

Hence it can be concluded that innovative practices followed in the innovative flexible curriculum school has significant effect on fluency of verbal creative thinking.
4.8.1.1.2 Flexibility of Verbal Creative Thinking

Table 4.32 Descriptive statistics of students of selected schools on Flexibility of Verbal Creative Thinking

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>23.7174</td>
<td>4.4455</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>24.4324</td>
<td>7.1629</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>14.0000</td>
<td>6.3532</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>9.0625</td>
<td>4.7786</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>26.6000</td>
<td>6.9498</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td>18.7922</td>
<td>8.6233</td>
</tr>
</tbody>
</table>

It is observed that the mean score of students in the Innovative Flexible Curriculum School is the highest. On the other hand the mean score of students in the Conventional State School is the lowest. The students in the CBSE Schools are in the middle score. From the table it is clear that the students studying in Innovative Flexible Curriculum School have more score on flexibility of verbal creative thinking and the students studying in the Conventional State School have the least score on flexibility of verbal creative thinking.

The significance of the mean scores of students of Innovative Flexible Curriculum School with CBSE and State Schools on flexibility of verbal creative thinking was obtained using the following hypotheses.
Hypothesis 1.1.2.3a

There is no significant effect of innovative practices on the flexibility of verbal creative thinking of students from innovative flexible curriculum school and students from CBSE Schools.

Hypothesis 1.1.2.3b

There is no significant effect of innovative practices on the flexibility of verbal creative thinking of students from innovative flexible curriculum school and students from State Schools.

To test the above hypotheses the one-way Analysis of Variance (ANOVA) followed by Post Hoc test is used. The summary of ANOVA table is shown below.

Table 4.33 ANOVA table for flexibility of verbal creative thinking and the selected schools

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>6407.868</td>
<td>4</td>
<td>1601.967</td>
<td>48.032</td>
<td>0.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>4969.482</td>
<td>149</td>
<td>33.352</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11377.351</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.34 Post Hoc Tests (Scheffe) for flexibility of verbal creative thinking and the selected schools

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>N</th>
<th>Subset for alpha =0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>9.0625</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>14.0000</td>
</tr>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>23.7174</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>24.4324</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>26.6000</td>
</tr>
</tbody>
</table>
The findings in the ANOVA followed by Post Hoc Tests in the above tables reveal that F value was found to be significant for the innovative flexible curriculum school students when compared to the two State schools. Thus the null hypothesis is rejected.

It is found that the mean scores for the flexibility of verbal creative thinking of the innovative flexible curriculum school students were highly significant when compared to state schools.

The Post Hoc Tests reveals that there is no significant difference in the scores of innovative flexible curriculum students with CBSE schools on the flexibility of creative thinking and thus the hypothesis is accepted

Hence it can be concluded that innovative practices followed in the innovative flexible curriculum school has significant effect on flexibility of verbal creative thinking when compared with State schools.

4.8.1.1.3. Originality of Verbal Creative Thinking

Table 4.35  Descriptive statistics of students of selected schools on originality of verbal creative thinking

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>32.8478</td>
<td>23.3323</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>30.4054</td>
<td>24.3453</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>7.1471</td>
<td>7.0545</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>4.8750</td>
<td>6.4094</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>111.6000</td>
<td>54.1461</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td>23.3312</td>
<td>28.6126</td>
</tr>
</tbody>
</table>
It is observed that the mean score of students in the Innovative Flexible Curriculum School is the highest. On the other hand the mean score of students in the Conventional State School is the lowest. The students in the Innovative Flexible Curriculum School also have scored maximum variance, whereas Conventional State School secured very less variance. The students in the CBSE Schools are in the middle score. From the table it is clear that the students studying in Innovative Flexible Curriculum School have more score on originality of verbal creative thinking and the students studying in the Conventional State School have the least score on originality of verbal creative thinking.

The significance of the mean scores of students of Innovative Flexible Curriculum School with CBSE and State Schools on originality of verbal creative thinking was obtained using the following hypothesis.

**Hypothesis 1.1.3.3**

There is no significant effect of innovative practices on the originality of verbal creative thinking of students from innovative flexible curriculum school and students from CBSE and State Schools.

To test the above hypothesis the one-way Analysis of Variance (ANOVA) followed by Post Hoc test is used. The summary of ANOVA table is shown below.

**Table 4.36 ANOVA table for originality of verbal creative thinking and the selected schools**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>64780.292</td>
<td>4</td>
<td>16195.073</td>
<td>39.900</td>
<td>0.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>60477.818</td>
<td>149</td>
<td>405.891</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>125258.11</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4.37 Post Hoc Tests (Scheffe) for originality of verbal creative thinking and the selected schools

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>N</th>
<th>Subset for alpha =0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>4.8750</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>7.1471</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>30.4054</td>
</tr>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>32.8478</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>111.6000</td>
</tr>
</tbody>
</table>

The findings in the ANOVA followed by Post Hoc Tests in the above tables reveal that F value was found to be significant for the innovative flexible curriculum school students when compared to other four schools. Thus the null hypothesis is rejected.

It is found that the mean scores for the originality of verbal creative thinking of the innovative flexible curriculum school students were highly significant when compared to state schools and it has a significant difference with the CBSE schools also.

Hence it can be concluded that innovative practices followed in the innovative flexible curriculum school has significant effect on originality of verbal creative thinking.
4.8.1.2. Non-Verbal Creative Thinking

Table 4.38  Descriptive statistics of students of selected schools on Non-Verbal Creative Thinking

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>57.24</td>
<td>12.70</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>50.95</td>
<td>14.58</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>56.26</td>
<td>13.14</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>48.59</td>
<td>11.94</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>80.40</td>
<td>31.29</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td>54.47</td>
<td>14.98</td>
</tr>
</tbody>
</table>

It is observed that the mean score of students in the Innovative Flexible Curriculum School is the highest. On the other hand the mean score of students in the Conventional State School is the lowest. The students in the Innovative Flexible Curriculum School also have scored maximum variance, whereas Conventional State School secured very less variance. From the table it is clear that the students studying in Innovative Flexible Curriculum School have more score on non-verbal creative thinking and the students studying in the Conventional State School have the least score on non-verbal creative thinking.

The significance of the mean scores of students of Innovative Flexible Curriculum School with CBSE and State Schools on non-verbal creative thinking was obtained using the following hypothesis.
There is no significant effect of innovative practices on the non-verbal creative thinking of students from innovative flexible curriculum school and students from CBSE and State Schools.

To test the above hypothesis the one-way Analysis of Variance (ANOVA) followed by Post Hoc test is used. The summary of ANOVA table is shown below.

Table 4.39 ANOVA table for non-verbal creative thinking and the selected schools

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>5388.54</td>
<td>4</td>
<td>1347.135</td>
<td>6.933</td>
<td>0.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>28949.798</td>
<td>149</td>
<td>194.294</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>34338.338</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.40 Post Hoc Tests (Scheffe) for non-verbal creative thinking and the selected schools

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>N</th>
<th>Subset for alpha =0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>48.59</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>50.95</td>
</tr>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>56.26</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>57.24</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>80.40</td>
</tr>
</tbody>
</table>
The findings in the ANOVA followed by Post Hoc Tests in the above tables reveal that F value was found to be highly significant for the innovative flexible curriculum school students when compared to other four schools. Thus the null hypothesis is rejected.

It is found that the mean scores for the non-verbal creative thinking of the innovative flexible curriculum school students were highly significant when compared to CBSE and State schools.

Hence it can be concluded that the innovative practices followed in the innovative flexible curriculum school has significant effect on non-verbal creative thinking.

### 4.8.1.2.1. Originality of Non-Verbal Creative Thinking

Table 4.41 Descriptive statistics of students of selected schools on originality of non-verbal creative thinking

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>29.8913</td>
<td>9.1948</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>28.4865</td>
<td>10.9281</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>31.3529</td>
<td>9.3805</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>26.5313</td>
<td>11.2622</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>40.0000</td>
<td>15.4110</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td>29.5065</td>
<td>10.5051</td>
</tr>
</tbody>
</table>

It is observed that the mean score of students in the Innovative Flexible Curriculum School is the highest. On the other hand the mean score of students in the Conventional State School is the lowest. The students in the Innovative Flexible
Curriculum School also have scored maximum variance. The students in the CBSE Schools are in the middle score. The Innovative State School stands in the second position. From the table it is clear that the students studying in Innovative Flexible Curriculum School have more score of originality of non-verbal creative thinking and the students studying in the Conventional State School have the least score of non-verbal creative thinking.

The significance of the mean scores of students of Innovative Flexible Curriculum School with CBSE and State Schools on originality of non-verbal creative thinking was obtained using the following hypothesis.

**Hypothesis 1.2.1.3.**

There is no significant effect of innovative practices on the originality of non-verbal creative thinking of students from innovative flexible curriculum school and students from CBSE and State Schools.

To test the above hypothesis the one-way Analysis of Variance (ANOVA) followed by Post Hoc test is used. The summary of ANOVA table is shown below.

**Table 4.42 ANOVA table for originality of non-verbal creative thinking and the selected schools**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>995.060</td>
<td>4</td>
<td>248.765</td>
<td>2.333</td>
<td>0.058</td>
</tr>
<tr>
<td>Within Groups</td>
<td>15889.433</td>
<td>149</td>
<td>106.640</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>16884.494</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The findings in the ANOVA revealed that F value was found to be not significant for the innovative flexible curriculum school students when compared to other four schools. Thus the null hypothesis is accepted.

Hence it can be concluded that innovative practices followed in the innovative flexible curriculum school has no significant effect on originality of non verbal creative thinking.

4.8.2.2.2. Elaboration of Non-Verbal Creative Thinking

Table 4.43 Descriptive statistics of students of selected schools on Elaboration of Non-Verbal Creative Thinking

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>27.35</td>
<td>6.32</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>22.46</td>
<td>5.39</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>24.91</td>
<td>5.89</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>22.06</td>
<td>3.89</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>40.40</td>
<td>16.61</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td>24.96</td>
<td>7.01</td>
</tr>
</tbody>
</table>

It is observed that the mean score of students in the Innovative Flexible Curriculum School is the highest. On the other hand the mean score of students in the Conventional State School is the lowest. The students in the Innovative Flexible Curriculum School also have scored maximum variance, whereas Conventional State School secured less variance. From the table it is clear that the students studying in Innovative Flexible Curriculum School have more score on elaboration of non-verbal
creative thinking and the students studying in the Conventional State School have the least score on elaboration of non-verbal creative thinking.

The significance of the mean scores of students of Innovative Flexible Curriculum School with CBSE and State Schools on elaboration of non-verbal creative thinking was obtained using the following hypothesis.

**Hypothesis 1.2.2.3**

There is no significant effect of innovative practices on the elaboration of non-verbal creative thinking of students from innovative flexible curriculum school and students with CBSE and State Schools.

To test the above hypothesis the one-way Analysis of Variance (ANOVA) followed by Post Hoc test is used. The summary of ANOVA table is shown below.

**Table 4.44 ANOVA table for elaboration of non-verbal creative thinking and the selected schools**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1954.332</td>
<td>4</td>
<td>488.583</td>
<td>13.085</td>
<td>0.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>5563.434</td>
<td>149</td>
<td>37.338</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7517.766</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 4.45 Post Hoc Tests (Scheffe) for elaboration of non-verbal creative thinking and the selected schools**

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>N</th>
<th>Subset for alpha =0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>22.06</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>22.46</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>24.91</td>
</tr>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>27.35</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>40.40</td>
</tr>
</tbody>
</table>
The findings in the ANOVA followed by Post Hoc Tests in the above tables reveal that F value was found to be significant for the innovative flexible curriculum school students when compared to other four schools. Thus the null hypothesis is rejected.

It is found that the mean scores for the elaboration of non-verbal creative thinking of the innovative flexible curriculum school students were highly significant when compared to state schools and CBSE schools.

Hence it can be concluded that innovative practices followed in the innovative flexible curriculum school has significant effect on elaboration of non-verbal creative thinking.

4.8.2. Interpersonal Relationship of Classmates

Table 4.46 Descriptive statistics of students of selected schools on interpersonal relationship among classmates

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>3.01</td>
<td>0.3320</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>3.34</td>
<td>0.2957</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>3.46</td>
<td>0.3932</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>3.33</td>
<td>0.4824</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>4.77</td>
<td>0.2529</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td>3.31</td>
<td>0.4865</td>
</tr>
</tbody>
</table>

It is observed that the mean score of students in the Innovative Flexible Curriculum School is the highest. On the other hand the mean score of students in the Innovative CBSE School is the lowest. The students in the Innovative State Schools are in the middle score. From the table it is clear that the students studying in
Innovative Flexible Curriculum School have more score on interpersonal relationship among classmates and the students studying in the Innovative CBSE School have the least score on interpersonal relationship among classmates.

The significance of the mean scores of students of Innovative Flexible Curriculum School with CBSE and State Schools on interpersonal relationship among classmates using the following hypothesis.

**Hypothesis 2.1.3**

There is no significant effect of innovative practices on the interpersonal relationship among the classmates of innovative flexible curriculum school students with CBSE and State School students.

To test the above hypothesis the one-way Analysis of Variance (ANOVA) followed by Post Hoc test is used. The summary of ANOVA table is shown below.

**Table 4.47 ANOVA table for interpersonal relationship among classmates and the selected schools**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>15.537</td>
<td>4</td>
<td>3.884</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within Groups</td>
<td>20.678</td>
<td>149</td>
<td>0.139</td>
<td>27.989</td>
<td>0.000</td>
</tr>
<tr>
<td>Total</td>
<td>36.215</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4.48  Post Hoc Tests (Scheffe) for interpersonal relationship among classmates and the selected schools

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>N</th>
<th>Subset for alpha = 0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>3.0121</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>3.3283</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>3.3353</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>3.4640</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>4.7670</td>
</tr>
</tbody>
</table>

The findings in the ANOVA followed by Post Hoc Tests in the above tables reveal that F value was found to be significant for the innovative flexible curriculum school students when compared to other four schools. Thus the null hypothesis is rejected.

It is found that the mean scores for the interpersonal relationship among classmates of the innovative flexible curriculum school students were highly significant when compared to state and CBSE schools. Hence it can be concluded that innovative practices followed in the innovative flexible curriculum school has significant effect on the interpersonal relationship among classmates.
4.8.2.1. Interpersonal Relationship among Same Gender Classmates

Table 4.49 Descriptive statistics of students of selected schools on Interpersonal Relationship among Same Gender Classmates

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>3.8717</td>
<td>0.3998</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>4.2262</td>
<td>0.2863</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>3.8429</td>
<td>0.4994</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>3.5147</td>
<td>0.5588</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>4.8000</td>
<td>0.4472</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td>3.9065</td>
<td>0.5223</td>
</tr>
</tbody>
</table>

It is observed that the mean score of students in the Innovative Flexible Curriculum School is the highest. On the other hand the mean score of students in the Conventional State School is the lowest. From the table it is clear that the students studying in Innovative Flexible Curriculum School have more score on interpersonal relationship among same gender classmates and the students studying in the Innovative CBSE School have the least score on interpersonal relationship among same gender classmates.

The significance of the mean scores of students of Innovative Flexible Curriculum School with CBSE and State Schools on interpersonal relationship among same gender classmates using the following hypothesis.
Hypothesis 2.1.1.3 There is no significant effect of innovative practices on the interpersonal relationship among the same gender classmates of innovative flexible curriculum school and CBSE and State Schools.

To test the above hypothesis the one-way Analysis of Variance (ANOVA) followed by Post Hoc test is used. The summary of ANOVA table is shown below.

Table 4.50 ANOVA table for interpersonal relationship among same gender classmates and the selected schools

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>12.879</td>
<td>4</td>
<td>3.220</td>
<td>16.628</td>
<td>0.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>28.853</td>
<td>149</td>
<td>0.194</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>41.732</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.51 Post Hoc Tests (Scheffe) for interpersonal relationship among same gender classmates and the selected schools

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>N</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>3.5147</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>3.8429</td>
<td>3.8429</td>
<td></td>
</tr>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>3.8717</td>
<td>3.8717</td>
<td></td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td></td>
<td></td>
<td>4.2262</td>
</tr>
<tr>
<td>Innovative Flexible</td>
<td>5</td>
<td></td>
<td></td>
<td>4.8000</td>
</tr>
<tr>
<td>Curriculum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The findings in the ANOVA followed by Post Hoc Tests in the above tables reveal that F value was found to be significant for the innovative flexible curriculum school students when compared to other four schools. Thus the null hypothesis is rejected.

It is found that the mean scores for the interpersonal relationship among same gender classmates of the innovative flexible curriculum school students were highly significant when compared to state and CBSE schools. Hence it can be concluded that innovative practices followed in the innovative flexible curriculum school has significant effect on the interpersonal relationship among same gender classmates.

4.8.2.2. Interpersonal Relationship among Opposite Gender Classmates

Table 4.52 Descriptive statistics of students of selected schools on Interpersonal Relationship among Opposite Gender Classmates

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>2.1524</td>
<td>0.5800</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>2.4443</td>
<td>0.4855</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>3.0850</td>
<td>0.5285</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>3.1419</td>
<td>0.5108</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>4.6000</td>
<td>0.5477</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td>2.7135</td>
<td>0.7569</td>
</tr>
</tbody>
</table>

It is observed that the mean score of students in the Innovative Flexible Curriculum School is the highest. On the other hand the mean score of students in the Innovative CBSE is the lowest. From the table it is clear that the students studying in Innovative Flexible Curriculum School have more score on interpersonal relationship
among opposite gender classmates and the students studying in the Innovative CBSE School have the least score on interpersonal relationship among opposite gender classmates.

The significance of the mean scores of students of Innovative Flexible Curriculum School with CBSE and State Schools on interpersonal relationship among opposite gender classmates using the following hypothesis.

**Hypothesis 2.1.2.3**

*There is no significant effect of innovative practices on the interpersonal relationship among the opposite gender classmates of innovative flexible curriculum school students with CBSE and State School students.*

To test the above hypothesis the one-way Analysis of Variance (ANOVA) followed by Post Hoc test is used. The summary of ANOVA table is shown below.

**Table 4.53 ANOVA table for interpersonal relationship among opposite gender classmates and the selected schools**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>45.523</td>
<td>4</td>
<td>11.381</td>
<td>40.250</td>
<td>0.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>42.129</td>
<td>149</td>
<td>0.283</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>87.652</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCHOOL</td>
<td>N</td>
<td>Subset for alpha =0.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----</td>
<td>-----------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Innovative CBSE</td>
<td>32</td>
<td>2.1524</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>34</td>
<td>2.4443</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovative State</td>
<td>46</td>
<td>3.0850</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conventional State</td>
<td>37</td>
<td>3.1419</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td></td>
<td>4.6000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The findings in the ANOVA followed by Post Hoc Tests in the above tables reveal that F value was found to be significant for the innovative flexible curriculum school students when compared to other four schools. Thus the null hypothesis is rejected.

It is found that the mean scores for the interpersonal relationship among opposite gender classmates of the innovative flexible curriculum school students were highly significant when compared to CBSE and is significantly higher with State schools also. Hence it can be concluded that innovative practices followed in the innovative flexible curriculum school has significant effect on the interpersonal relationship among opposite gender classmates.
4.8.3. Communication Skills

Table 4.55 : Descriptive statistics of students of selected schools on communication skills.

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>53.43</td>
<td>6.4279</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>56.08</td>
<td>6.5463</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>52.76</td>
<td>5.4275</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>49.72</td>
<td>5.8543</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>50.80</td>
<td>5.9749</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td>53.0649</td>
<td>6.4216</td>
</tr>
</tbody>
</table>

It is observed that the mean score of students in the Conventional CBSE School is the highest. On the other hand the mean score of students in the Conventional State School is the lowest. The students in the Conventional CBSE School also have scored maximum variance. The students in the Innovative Flexible Curriculum School have scored the fourth position. From the table it is clear that the students studying in Conventional CBSE School have more score on communication skills and the students studying in the Innovative Flexible Curriculum School have fewer score on communication skills and stands in the fourth position compared to other schools.

The significance of the mean scores of students of Innovative Flexible Curriculum School with CBSE and State Schools on communication skills was obtained using the following hypothesis.
Hypothesis 3.1.3

There is no significant effect of innovative practices on the communication skills of students from innovative flexible curriculum school and students from CBSE and State Schools.

To test the above hypothesis the one-way Analysis of Variance (ANOVA) followed by Post Hoc Test is used. The summary of ANOVA table is shown below.

Table 4.56 ANOVA table for communication skills and the selected schools

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F value</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>729.903</td>
<td>4</td>
<td>182.476</td>
<td>4.873</td>
<td>0.001</td>
</tr>
<tr>
<td>Within Groups</td>
<td>5579.488</td>
<td>149</td>
<td>37.446</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6309.351</td>
<td>153</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.57 Post Hoc Tests (Scheffe) for communication skills and the selected schools

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>N</th>
<th>Subset for alpha = 0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Conventional State</td>
<td>32</td>
<td>49.72</td>
</tr>
<tr>
<td>Innovative Flexible Curriculum</td>
<td>5</td>
<td>50.80</td>
</tr>
<tr>
<td>Innovative State</td>
<td>34</td>
<td>52.76</td>
</tr>
<tr>
<td>Innovative CBSE</td>
<td>46</td>
<td>53.43</td>
</tr>
<tr>
<td>Conventional CBSE</td>
<td>37</td>
<td>56.08</td>
</tr>
</tbody>
</table>
The findings in the ANOVA followed by Post Hoc Tests in the above tables reveal that F value was not significant for the innovative flexible curriculum school students when compared to other four schools. Thus the null hypothesis is accepted. Hence it can be concluded that innovative practices followed in the innovative flexible curriculum school has no significant effect on communication skills.

4.8.4 Findings of the Study

On the comparison of innovative flexible curriculum school with CBSE and State Schools, the following are the major findings.

**Innovative Practices and Creative thinking**

1. The innovative practices followed in the innovative flexible curriculum school has significant effect on creative thinking.
2. The innovative practices followed in the innovative flexible curriculum school has significant effect on verbal creative thinking.
3. The innovative practices followed in the innovative flexible curriculum school have significant effect on fluency of verbal creative thinking.
4. The innovative practices followed in the innovative flexible curriculum school has significant effect on flexibility of verbal creative thinking when compared with State school.
5. The innovative practices followed in the innovative flexible curriculum school has significant effect on originality of verbal creative thinking.
6. The innovative practices followed in the innovative flexible curriculum school has significant effect on non-verbal creative thinking.
7. The innovative practices followed in the innovative flexible curriculum school has no significant effect on originality of non-verbal creative thinking.

8. The innovative practices followed in the innovative flexible curriculum school has significant effect on elaboration of non-verbal creative thinking.

**Innovative Practices and Interpersonal Relationship**

9. The innovative practices followed in the innovative flexible curriculum school has significant effect on the interpersonal relationship among classmates.

10. The innovative practices followed in the innovative flexible curriculum school has significant effect on the interpersonal relationship among same gender classmates.

11. The innovative practices followed in the innovative flexible curriculum school has significant effect on the interpersonal relationship among opposite gender classmates.

**Innovative Practices and Communication skill**

12. The innovative practices followed in the innovative flexible curriculum school has no significant effect on communication skills.
Figure 1
Comparison of students of various types of schools on various dimensions of creative thinking
Figure 2
Comparison of students of various types of schools on various dimensions of Interpersonal relationships

![Graphs showing comparison of students of various types of schools on various dimensions of Interpersonal relationships.](image)
Figure 3

Mean Academic achievement scores and communication skills scores of students belonging to different types of schools.

![Bar chart showing mean academic achievement and communication skills scores for different school types.](chart.png)