CHAPTER V
SUMMARY, FINDINGS AND CONCLUSION

5.1 SUMMARY

Educational level of a nation contributes largely to its development and strength. A nation’s quality education relies on the Schools of the nation. This study was undertaken with the view to study the factors influencing the Academic Achievement of Higher Secondary Students studying in Higher Secondary Schools in Ariyalur District. It aimed at finding the relations among the Learning Styles, School Climate and Academic Achievement. In this study Learning Styles and School Climate were taken to find out their influence on the Achievement and some background variables were taken to study with. School Climate and Learning Styles plays a significant role in the success of students.

5.2 STATEMENT OF THE PROBLEM

“A school is a place where one learns about the totality, the wholeness of life. Academic excellence is absolutely necessary, but a school includes much more than that. It is a place where both the teacher and the student explore, not only the outer world, the world of knowledge, but also their own thinking, their own behavior”- J.Krishnamurthi.

According to the Kothari Commission, “The destiny of India is being shaped in the classrooms”. School climate may be one of the most important ingredients of a successful instructional program. Without a climate that creates a harmonious and well functioning School, a high degree of Academic Achievement is difficult, if not downright impossible to obtain. So it is important that the School Climate, the focus of this is evident in the feelings and attitudes about a school expressed by students, staff and parents the way students and staff’s “feels” about being at school each day. The Learning Styles and School Climate make students to perform higher than other students on Academic Achievement. It provides additional support for instruction at all levels of the educational progress. It increases in explicit presentation of Learning styles positively influence students. Hence, as an attempt to make aware of the educators, the present study is
intended to investigate the relations of, “A Study on Learning Styles, School Climate and Academic Achievement in Physics among Higher Secondary Students in Ariyalur District.”

5.3 NEED AND SIGNIFICANCE FOR THE PRESENT STUDY

School is the safest place and the teachers are the persons who could ensure that safety over there. This was conceptualized previously by Frobel’s as ‘school’ is an essential social institution. He regarded school as a miniature society where children get training in important things of life. They learn the virtues of co-operation, sympathy, fellow-feeling and responsibility, etc. Froebel conceived the school as garden, the teacher as a gardener and the students as tender plants. Here it is worth mentioning the dictum, “if one school door is opened thousand doors of a prison would be closed”.

The National Curriculum Framework for School Education (NCFSE 2000) makes critical remark, that schools across the country are obsessed without basic infrastructure and good School Climate. All efforts taken in the field of education in learning process are concentrated on cognitive skills alone. This limited focus on the cognitive to the total disregard of the affective aspect in the learning process has long been recognized as a pedagogic aberration. Many strategies implemented by the state government became additional benefit in improving children’s cognitive skills. But the affective domain of children remains unattended and not satisfactory. Corporal punishment, teacher misbehavior in the class room, teachers with alcoholic consumption during class hours, sexual abuse, children’s suicide rates and lack of basic infrastructure like water, restroom, laboratory, and classroom are on the increase not only in private schools but also in government schools. The studies on dropout expose that about 10% is because of corporal punishment. The National Curriculum Framework for School Education (NCFSE 2000) makes a critical remark, Learning should be an enjoyable act where children should feel that they are valued and their voices are heard. The curriculum structure and school should be designed to make school a satisfactory place for students to feel secure and valued. Pedagogy of learning sciences should be designed to address the aims of learning science is to learn the facts and principles of science and its applications, consistent with the stage of cognitive development. To acquire skills and
understand the methods and processes that lead to generation and validation of scientific knowledge. To develop a historical and developmental perspective of science and to enable them to view science as a social enterprise. To relate the, local as well as global, and appreciate the issues at the interface of science, technology and society. To acquire the requisite theoretical knowledge, practical and technological skills to enter the world of work. To nurture the natural curiosity, aesthetic sense and creativity in science and technology. To imbibe the values of honesty, integrity, cooperation, concern for life and preservation of environment and to cultivate 'scientific temper'-objectivity, critical thinking and freedom from fear and prejudice.

Physical environment has to be maintained favourable to students in terms of infrastructure, adequate light and ventilation, student teacher ratio, hygiene and safe environment. Schools should also treat students with equality, justice respect, dignity and right of the students. Give equal opportunities for all students to participate in all activities without any bias. Policy of inclusion has to be part of the school where differently able and children from marginalized section get equal opportunities. The schools should also be well equipped with libraries, laboratories and educational technology laboratories.

Many people recognize that each person prefers different Learning Styles and techniques. Learning styles group common ways that people learn. Everyone has a mix of learning styles. Some people may find that they have dominant Styles of Learning, with far less use of the other styles. Others may find that they use different styles in different circumstances.

Creating a healthy school environment for students begins by supporting healthy relationships among the staff. Healthy relationships produce a climate conducive to honesty, open communication, and risk-taking. In a true learning community, cooperative learning and mutual respect are expected of faculty as well as students. Establishing a supportive school environment increases self-esteem and achievement.
An inclusive environment ensures that all students, regardless of race, disability, strengths, or weaknesses, are significantly involved in the school community. Middle schools thrive as they connect all constituents to a belief in and thirsting for success at their school. Building a sense of community makes students more apt to share perspectives of their teachers, ultimately leading to increased Academic Achievement. The overall School Climate is enhanced by positive behaviour and attitudes of students and teachers.

Developing a productive environment conducive to learning involves establishing a school atmosphere that promotes cooperation, trust, loyalty, openness, pride, and commitment. School climate is also associated with academic achievement, faculty morale, and student behaviour.

An effective school establishes a climate that cultivates respectful and supportive relationships. Close, trusting relationships with adults and peers create a climate that supports personal and academic growth. The school environment must be structured in a manner that supports teachers developing meaningful relationships with each student. Adult mentors provide individualized support to assist students in establishing goals, planning areas of study, and involving parents in the process. Students are content in schools where they feel justly treated, safe, and supported by teachers.

One of the most important things to understand about Learning Styles is that they are developmental in nature. Learning Styles changes over time, based on experiences and level of education.

Manor (1987) stated, "Because the school is a very powerful agent in the process of socialization and development of the future citizen in society, the importance of both school environment and the school congruence with their students needs are very important issues for further research. Gersser and Wolf Jr. (1983) referred to the need to question adolescents about their views on school and teachers. The importance of considering student perceptions of school was also expressed by Genn (1984), and Deer,
Maxwell and Relich (1986). Student perceptions of schools can provide interesting insights into school climate as perceived by adolescents. Since students are, ultimately, the focus of the educational process, this research provided additional insight into both their needs and their perceptions of the institutions in which education is meant to take place.

Learning is a natural process and human beings have an innate or natural capacity to learn. The level of learning is one of the most important factors which indicate the success of Learning Environment. Lack of effective learning strategies and ignorance of the Student’s Learning Styles and School Climate may lead to academic underachievement. Learners having different Learning Styles preferences would behave differently in the way they perceive interact and respond to the same environment. It will be important for teachers to examine the various styles in their students Learning Styles and also creating a healthy School Climate for students by supporting healthy relationships among the learners. Hence by considering the above three variables would have close relationship among themselves so, the investigator wanted to find out the relationship among these suitable variables.

5.4 OBJECTIVES OF THE STUDY

The following objectives were formulated for this study and listed.

1. To find out the choice in the preference of Learning Styles of Higher Secondary Students studying in various Schools in Ariyalur District.
2. To find out the School Climate of Higher Secondary Students studying in various Schools in Ariyalur District.
3. To find out the Achievement Scores of Higher Secondary Students studying in various Schools in Ariyalur District.
4. To find out whether the Learning Styles scores of Higher Secondary Students differ significantly with respect to their Gender.
5. To find out whether the Learning Styles of Higher Secondary Students with respect to their Locality of School.
6. To find out whether the Learning Styles of Higher Secondary Students differ significantly with respect to their different Management they studied in Higher Secondary.

7. To find out whether the Learning Styles of Higher Secondary Students differ significantly with respect to their Type of School which they studied in Higher Secondary.

8. To find out whether the Learning Styles of Higher Secondary Students differ significantly with respect to their Board of Institution.

9. To find out whether the Learning Styles of Higher Secondary Students differ significantly with respect to their Medium of Institution.

10. To find out whether Learning Styles of Higher Secondary Students differ significantly with respect to their Father’s Educational Qualification.

11. To find out whether the Learning Styles of Higher Secondary Students differ significantly with respect to their Mother’s Educational Qualification.

12. To find out whether the Learning Styles of Higher Secondary Students differ significantly with respect to their Father’s Occupation.

13. To find out whether the Learning Styles of Higher Secondary Students differ significantly with respect to their Mother’s Occupation.

14. To find out whether the Learning Styles of Higher Secondary Students differ significantly with respect to their Parent’s Annual Income level.

15. To find out whether the Learning Styles of Higher Secondary Students differ significantly with respect to their number of Siblings.

16. To find out whether the Learning Styles of Higher Secondary Students differ significantly with respect to their Type of Family.

17. To find out whether the Learning Styles of Higher Secondary Students differ significantly with respect to their Coaching Classes.

18. To find out whether the School Climate of Higher Secondary Students differ significantly with respect to their Gender.

19. To find out whether the School Climate of Higher Secondary Students differ significantly with respect to their Locality of School.
20. To find out whether the School Climate of Higher Secondary Students differ significantly with respect to their different Management they studied in Higher Secondary.

21. To find out whether the School Climate of Higher Secondary Students differ significantly with respect to their Type of School which they studied in Higher Secondary.

22. To find out whether the School Climate of Higher Secondary Students differ significantly with respect to their Board of Institution.

23. To find out whether the School Climate of Higher Secondary Students differ significantly with respect to their Medium of Instruction.

24. To find out whether the School Climate of Higher Secondary Students differ significantly with respect to their Father’s Educational Qualification.

25. To find out whether the School Climate of Higher Secondary Students differ significantly with respect to their Mother’s Educational Qualification.

26. To find out whether the School Climate of Higher Secondary Students differ significantly with respect to their Father’s Occupation.

27. To find out whether the School Climate of Higher Secondary Students differ significantly with respect to their Mother’s Occupation.

28. To find out whether the School Climate of Higher Secondary Students differ significantly with respect to their Parent’s Annual Income level.

29. To find out whether the School Climate of Higher Secondary Students differ significantly with respect to their Number of Siblings.

30. To find out whether the School Climate of Higher Secondary Students differ significantly with respect to their Type of Family.

31. To find out whether the School Climate of Higher Secondary Students differ significantly with respect to their Coaching Classes.

32. To find out whether the Academic Achievement of Higher Secondary Students differ significantly with Respect to their Gender.

33. To find out whether the Academic Achievement of Higher Secondary Students differs significantly with respect to their Locality of School.
34. To find out whether the Academic Achievement of Higher Secondary Students differs significantly with respect to their Different Management they studied in Higher Secondary.

35. To find out whether the Academic Achievement of Higher Secondary Students differ significantly with respect to their Type of School which they studied in Higher Secondary.

36. To find out whether the Academic Achievement of Higher Secondary Students differ significantly with respect to their Board of Institution.

37. To find out whether the Academic Achievement of Higher Secondary Students differ significantly with respect to their Medium of Instruction.

38. To find out whether the Academic Achievement of Higher Secondary Students differ significantly with respect to their Father’s Educational Qualification.

39. To find out whether the Academic Achievements of Higher Secondary Students differ significantly with respect to their Mother’s Educational Qualification.

40. To find out whether the Academic Achievement of Higher Secondary Students differs significantly with respect to their Father’s Occupation.

41. To find out whether the Academic Achievement of Higher Secondary Students differs significantly with respect to their Mother’s Occupation.

42. To find out whether the Academic Achievement of Higher Secondary Students differ significantly with respect to their Parent’s Annual Income level.

43. To find out whether the Academic Achievement of Higher Secondary Students differ significantly with respect to their Number of Siblings.

44. To find out whether Academic Achievement of Higher Secondary Students differ significantly with respect to their Type of Family.

45. To find out whether the Academic Achievement of Higher Secondary Students differs significantly with respect to their Coaching Classes.

46. To find out whether there is significant Correlation between Academic Achievement and School Climate of Higher Secondary Students.

47. To find out whether there is significant Correlation between Academic Achievement and Kinesthetic Learning Styles of Higher Secondary Students.
48. To find out whether there is significant Correlation between Academic Achievement and Auditory Learning Styles of Higher Secondary Students.
49. To find out whether there is significant Correlation between Academic Achievement and Visual Learning Styles of Higher Secondary Students.
50. To find out whether there is significant Correlation between School Climate and Kinesthetic Learning Styles of Higher Secondary Students.
51. To find out whether there is significant Correlation between School Climate and Visual Learning Styles of Higher Secondary Students.
52. To find out whether there is significant correlation between School climate and Visual Learning Styles of Higher Secondary Students.

5.5 HYPOTHESES OF THE STUDY

In order to accomplish the stipulated objectives of this study 52 null hypothesis were formulated and listed below;

1. There is no choice in the Preference of Learning Styles of Higher Secondary Students studying in various Schools in Ariyalur District.
2. There is no choice in the Preference of School Climate of Higher Secondary Students studying in various Schools in Ariyalur District.
3. There is no choice in the Preference of Achievement Scores of Higher Secondary Students studying in various Schools in Ariyalur District.
4. There is no significant difference in the Learning Styles Scores of Higher Secondary Student’s with respect to their Gender.
5. There is no significant difference in the Learning Styles of Higher Secondary Students with respect to their Locality of School.
6. There is no significant difference in the Learning Styles of Higher Secondary Students with respect to their different Management they studied in Higher Secondary.
7. There is no significant difference in the Learning Styles of Higher Secondary Students with respect to their Type of School which they studied in Higher Secondary.
8. There is no significant difference in the Learning Styles of Higher Secondary Students with respect to their Board of Institution.
9. There is no significant difference in the Learning Styles of Higher Secondary Students with respect to their Medium of Instruction.
10. There is no significant difference in the Learning Styles of Higher Secondary Students with respect to their Father’s Educational Qualification.
11. There is no significant difference in the Learning Styles of Higher Secondary Students with respect to their Mother’s Educational Qualification.
12. There is no significant difference in the Learning Styles of Higher Secondary Students with respect to their Father’s Occupation.
13. There is no significant difference in the Learning Styles of Higher Secondary Students with respect to their Mother’s Occupation.
14. There is no significant difference in the Learning Styles of Higher Secondary Students with respect to their Parent’s Annual Income level.
15. There is no significant difference in the Learning Styles of Higher Secondary students with respect to their Number of Siblings.
16. There is no significant difference in the Learning Styles of Higher Secondary Students with respect to their Type of Family.
17. There is no significant difference in the Learning Styles of Higher Secondary Students with respect to their Coaching Classes.
18. There is no significant difference in the School Climate of Higher Secondary Students with respect to their Gender.
19. There is no significant difference in the School Climate of Higher Secondary Students with respect to their Locality of School.
20. There is no significant difference in the School Climate of Higher Secondary Students with respect to their different Management they studied in Higher Secondary.
21. There is no significant difference in the School Climate of Higher Secondary Students with respect to their Type of School which they studied in Higher Secondary.
22. There is no significant difference in the School Climate of Higher Secondary Students with respect to their Board of Institution.
23. There is no significant difference in the School Climate of Higher Secondary Students with respect to their Medium of Instruction.
24. There is no significant difference in the School Climate of Higher Secondary Students with respect to their Father’s Educational Qualification.
25. There is no significant difference in the School Climate of Higher Secondary Students with respect to their Mother’s Educational Qualification.
26. There is no significant difference in the School Climate of Higher Secondary Students with respect to their Father’s Occupation.
27. There is no significant difference in the School Climate of Higher Secondary Students with respect to their Mother’s Occupation.
28. There is no significant difference in the School Climate of Higher Secondary Students with respect to their Parent’s Annual Income level.
29. There is no significant difference in the School Climate of Higher Secondary Students with respect to their Number of Siblings.
30. There is no significant difference in the School Climate of Higher Secondary Students with respect to their Type of Family.
31. There is no significant difference in the School Climate of Higher Secondary Students with respect to their Coaching Classes.
32. There is no significant difference in the Academic Achievement of Higher Secondary Students with respect to their Gender.
33. There is no significant difference in the Academic Achievement of Higher Secondary Students with respect to their Locality of School.
34. There is no significant difference in the Academic Achievement of Higher Secondary Students with respect to their Different Management they studied in Higher Secondary.
35. There is no significant difference in the Academic Achievement of Higher Secondary Students with respect to their Type of School which they studied in Higher Secondary.
36. There is no significant difference in the Academic Achievement of Higher Secondary Students with respect to their Board of Institution.
37. There is no significant difference in the Academic Achievement of Higher Secondary Students with respect to their Medium of Instruction.
38. There is no significant difference in the Academic Achievement of Higher Secondary Students with respect to their Father’s Educational Qualification.
39. There is no significant difference in the Academic Achievement of Higher Secondary Students with respect to their Mother’s Educational Qualification.
40. There is no significant difference in the Academic Achievement of Higher Secondary Students with respect to their Father’s Occupation.
41. There is no significant difference in the Academic Achievement of Higher Secondary Students with respect to their Mother’s Occupation.
42. There is no significant difference in the Academic Achievement of Higher Secondary Students with respect to their Parent’s Annual Income level.
43. There is no significant difference in the Academic Achievement of Higher Secondary Students with respect to their Number of Siblings.
44. There is no significant difference in the Academic Achievement of Higher Secondary Students with respect to their Type of Family.
45. There is no significant difference in the Academic Achievement of Higher Secondary Students with respect to their Coaching Classes.
46. There is no significant Correlation between Academic Achievement and School Climate of Higher Secondary Students.
47. There is no significant Correlation between Academic Achievement and Kinesthetic Learning Styles of Higher Secondary Students.
48. There is no significant Correlation between Academic Achievement and Auditory Learning Styles of Higher Secondary Students.
49. There is no significant Correlation between Academic Achievement and Visual Learning Styles of Higher Secondary Students.
50. There is no significant Correlation between School Climate and Kinesthetic Learning Styles of Higher Secondary Students.
51. There is no significant Correlation between School Climate and Visual Learning Styles of Higher Secondary Students.
52. There is no significant Correlation between School Climate and Visual Learning Styles of Higher Secondary Students.

5.6 LIMITATIONS OF THE STUDY

The researcher identified the following are the limitations of the present study.

The researcher identified the following are the limitations of the present study.

1. The study is made, involving the Higher Secondary Students studying in various Schools in Ariyalur District only.
2. Samples were collected from Ariyalur District Higher Secondary Schools only.
3. The Academic Achievement Test prepared for Physics is based on the State Board syllabi prescribed under Uniform System of School Education in Tamil Nadu.
4. The study consists of involving samples of Higher Secondary Students, following Simple Random Sampling Technique.
5. The study was conducted with the 11th standard Higher Secondary level at Ariyalur District.
6. The Investigator confined his study with only 943 samples from 20 Higher Secondary Students Schools.
7. Only 3 Tools were used to collect data, namely School Climate Inventory, Learning Styles Inventory and Academic Achievement Test in Physics.
8. The study does not cover all the Higher Secondary Students in Higher Secondary Schools.
9. The sample didn’t have equal distribution of Male and Female Students.

5.7 VARIABLES SELECTED FOR THE STUDY

The present study is intended to investigate the Learning Styles, School Climate and Academic Achievement in Physics among Higher Secondary Students in Ariyalur District. The variables involved here are,
RESEARCH VARIABLES

**Dependent variable**
- **Learning Styles** refers to Learning Styles of the Students.
- **School Climate** refers to the Class situation of the Students.
- **Academic Achievement** refers to how the students learn their Academic in Physics subject is found the test paper achievements.

**Independent variables**

**Personal Variables**
- **Gender** refers to the sex of the student such as Boys and Girls.
- **Coaching Class** refers to the student attending any Coaching Class or not.
- **Medium of instruction** refers to the language in which the students are taught in the class such as Tamil Medium and English Medium.

**Family related Variables**
- **Father’s Educational Qualification** refers to the Academic Qualification of the Father of the student such as illiterate Primary, Secondary, higher secondary, UG, PG and others.
- **Mother’s Educational Qualification** refers to the Academic Qualification of the mother of the student such as illiterate Primary, Secondary, Higher Secondary, UG, PG and others.
- **Father’s Occupation** refers to the Occupation of the Father of the student such as Daily wages, Self-Employee, Government employee and Business,
- **Mother’s Occupation** refers to the occupation of the mother of the student such as House Wife, Daily wages, Self-Employee, Government employee and Business.
- **Annual Income Level** refers to the Annual Income range of the parent such as Upto 1,00,000, 1,00,000-1,99,999 , 2,00,000- 2,99,999 and above 3,00,000.
- **No of Siblings** refers to siblings born along with them in numbers such as 1, 2 and More than 2.
- **Type of Family** refers to the family size such as Nuclear and Joint.
Institution related Variables

Type of School Management refers to the type of management that controls the school such as Private School, Aided School, and Government School.

Type of school refers to the type of school in which the student undergoing the study such as Girls School and Co-Education School.

Board of Institution refers to the Type of Board such as State and Matric.

5.8 METHOD OF THE STUDY

This research is classified as descriptive research which incorporates the use of a Normative Survey Method through Simple Random Sampling Technique.

5.9 SAMPLE OF THE STUDY

The students undergoing class XI were selected as Sample for administering the tools for this present research study. The data were collected from 943 samples totally. Simple Random Sampling Technique was followed in the data collection from the chosen samples.

5.10 DETAILS OF THE TOOL USED IN THE STUDY

The following tools were used in the present study.

1. “Learning Styles Inventory” was developed by R.Amudha and Dr.R.Muthaiyan was used to collect data in this study.

2. “School Climate Inventory” constructed, validated and standardized by the Researcher and the Supervisor.

3. “Achievement Test” for Higher Secondary Physics students was constructed, validated, standardized by the Researcher and the Supervisor.
5.11 STATISTICAL ANALYSIS

The statistics applied were (1) Descriptive analysis, (2) Differential analysis, and (3) Correlation analysis to test the devised hypothesis and to realize in the light of framed objectives which were formulated for this study. The tests used to analyze the data were “t” test and “F” test (ANOVA test), and Pearson’s product moment correlation.

5.12 FINDINGS OF THE STUDY

The findings of the study were listed below;

1. There are choices in the Preferences of Learning Styles of Higher Secondary Students in Higher Secondary Schools and the null hypothesis if rejected.
2. There is a high level of School Climate of Higher Secondary Students studying in Higher Secondary Schools. Since, the mean scores of School Climate is above the midpoint it infers that the sample posses above average School Climate and the null hypothesis is rejected.
3. There is no high scores in the Academic Achievement of Higher Secondary Students studying in Higher Secondary Schools. As the means of the entire sub-groups fall close around the average and it displays not much Deviation from the midpoint and so the null hypothesis is accepted.
4. There is no significant difference between Male and Female Higher Secondary Students with respect to their Kinesthetic Learning Styles Scores. There is a significant difference between Male and Female Higher Secondary Students with respect to their Auditory Learning Styles Scores. The Female Higher Secondary Students prefer Auditory Learning Styles more than the Male Higher Secondary Students. There is no significant difference between Male and Female Higher Secondary Students with respect to their Visual Learning Styles Scores. From the computed results the research hypothesis is partially accepted and partially rejected.
5. There is no significant difference in their different Locality of Higher Secondary Students as Rural and Urban with respect to all the three Learning Styles scores of Kinesthetic, Visual and Auditory.
6. There is significance of difference between mean scores of Learning Styles of Higher Secondary Students with respect to their management they studied in Higher Secondary Schools.

7. There is significance of difference between mean scores of Kinesthetic and Auditory Learning Styles of Higher Secondary Students with respect type of which they did their schooling in Higher Secondary courses and there is no significant difference between mean scores Visual Learning Styles of Higher Secondary Students with respect type of which they did their schooling in Higher Secondary courses.

8. There is no significant difference in their Board of Institution of Higher Secondary Students as state and Metric Board with respect to all the three Learning Styles Scores of Visual, Auditory and Kinesthetic.

9. There is significant difference between Tamil and English Medium Higher Secondary Students with respect to their Learning Styles Scores Visual, Auditory and Kinesthetic. Tamil Medium Higher Secondary Students’ Kinesthetic Learning Styles Score is more than the English Medium Higher Secondary Students’. English Medium Higher Secondary Students’ Auditory and Visual Learning Styles Score is more than the Tamil Medium Higher Secondary Students.

10. There is no significant difference between groups and within groups of Higher Secondary Students with respect to their Father’s Educational Qualification (Illiterate, Primary, Secondary, Higher Secondary, UG degree, PG degree and other Educational Qualification) for all the three Visual, Auditory and Kinesthetic Learning Styles.

11. There is no significant difference between groups and within groups of Higher Secondary Students with respect to their Mother’s Educational Qualification (Illiterate, Primary, Secondary, Higher Secondary, UG degree, PG degree and other Educational Qualification) for all the three Visual, Auditory and Kinesthetic Learning Styles.

12. There is no significant difference between groups and within groups of Higher Secondary Students with respect to their Father’s Occupation as Daily Wages, Farmer, Business and Government Employee for all the three Visual, Auditory and Kinesthetic Learning Styles.
13. There is no significant difference between groups and within groups of Higher Secondary Students with respect to their Mother’s Occupation Father’s Occupation as Daily wages, farmer, Business and Government Employee for all the three Visual, Auditory and Kinesthetic Learning Styles.

14. There is no significant difference between groups and within groups of Higher Secondary Students with respect to their Parent’s Annual Income (Upto 1,00,000, 1,00,000 to 1,99,999, 2,00,000 to 2,99,999 and above 3,00,000) for all the three Visual, Auditory and Kinesthetic Learning Styles.

15. There is no significant difference between groups and within groups of Higher Secondary Students with respect to their Number of Siblings as only one, 2-brothers and sisters, 3-brothers and sisters, 4-brothers and sisters and no Siblings for all the three Visual, Auditory and Kinesthetic Learning Styles.

16. There is no significant difference in the different Type of Family as Individual and Joint Family of Higher Secondary Students with respect to all the three Visual, Auditory and Kinesthetic Learning Styles.

17. There is no significant difference in Coaching Classes of Higher Secondary Students with respect to all the three Visual, Auditory and Kinesthetic Learning Styles.

18. There is a significant difference between Male and Female Higher Secondary Students with respect to their School Climate Scores. Female Higher Secondary Students’ School Climate Scores more than the Male Higher Secondary Students.

19. There is a significant difference in their Locality of the Higher Secondary Students with respect to their School Climate Scores. Rural Higher Secondary Students School Climate Scores is more than the Urban Higher Secondary Student’s School Climate Scores.

20. There is significant difference between Government, Aided and Private Higher Secondary School Students’ where as there is no significant difference between Government and Aided Higher Secondary School Students’.

21. There is significant difference between boy’s school, Girls school and Co-Education Higher Secondary School Students’ where as there is no significant difference between boy’s school and Girls school Higher Secondary School Students’.
22. There is significant difference between State Board and Metric Higher Secondary Students with respect to their School Climate Scores. State Board Higher Secondary Student’s School Climate Scores more than the Metric Board Higher Secondary Students.

23. There is significant difference between English Medium and Tamil Medium Higher Secondary Students with respect to their School Climate Scores. Tamil Medium Higher Secondary Students’ School Climate Scores more than the English Medium Higher Secondary Students’.

24. There is no significant difference of the Higher Secondary Students Fathers Educational Qualification with respect to their School Climate Scores.

25. There is no significant difference of the Higher Secondary Student’s Mother’s Educational Qualification with respect to their School Climate Scores.

26. There is no significant difference of the Higher Secondary Students Father’s Occupation with respect to their School Climate scores.

27. There is no significant difference of the Higher Secondary Student’s Mother’s Occupation with respect to their School Climate scores.

28. There is no significant difference in the Parent’s Annual Income of the Higher Secondary Students with respect to their School Climate scores.

29. There is no significant difference of the Higher Secondary Student’s Siblings with respect to their School Climate scores.

30. There is no significant difference in their different Type of Family of Higher Secondary Students as nuclear and Joint Family with respect to their School Climate scores.

31. There is a significant difference in Coaching Classes of Higher Secondary Students with respect to their School Climate scores.

32. There is a significant difference between Male and Female Higher secondary student with respect to their Academic Achievement test scores. The Female Higher Secondary Students scored more marks in Physics than the Male Higher Secondary Students.
33. There is a significant difference between Rural and Urban Higher Secondary Students with respect to their Achievement Test Scores. The Rural Higher Secondary Students scored more marks in Physics than the Urban Higher Secondary Students.

34. There is significant difference between Government, Private and Aided Management Higher Secondary Students’ where as there is no significant difference between Private and Government Higher Secondary Students.’

35. That there is significant difference between Co-Education and boys school and Girls school type of Higher Secondary School Students’ where as there is no significant difference between boys school and only Girl’s type of Higher Secondary School Students’.

36. There is no significant difference between State Board and Metric Higher Secondary Students with respect to their Achievement Test Scores.

37. There is no significant difference between English Medium and Tamil Medium Higher Secondary Students with respect to their Achievement Test Scores.

38. There is no significant difference of the Higher Secondary Students Fathers Educational Qualification with respect to their Achievement Scores.

39. There is no significant difference of the Higher Secondary Student’s Mother’s Educational Qualification with respect to their Achievement Scores.

40. There is no significant difference of the Higher Secondary Students Father’s Occupation with respect to their Achievement Scores.

41. There is no significant difference of the Higher Secondary Student’s Mother’s Occupation with respect to their Achievement Scores.

42. There is no significant difference in the Parent’s Annual Income of the Higher Secondary Students with respect to their Achievement Scores.

43. There is no significant difference of the Higher Secondary Student’s Siblings with respect to their Achievement Scores.

44. There is no significant difference in their different Type of Family of Higher Secondary Students as nuclear and Joint Family with respect to their Achievement Scores.

45. There is a significant difference in Coaching Classes of Higher Secondary Students with respect to their Achievement Scores.
46. There is a Negligible Positive Correlation between Academic Achievement and School Climate of Higher Secondary Students.

47. There is a Negligible Positive Correlation between Academic Achievement and Kinesthetic Learning Styles of Higher Secondary Students.

48. There is a Negligible Negative Correlation between Academic Achievement and Auditory Learning Styles of Higher Secondary Students.

49. There is a negligible Negative Correlation between Academic Achievement and Visual Learning Styles of Higher Secondary Students.

50. There is a Negligible Positive Correlation between School Climate and Kinesthetic Learning Styles of Higher Secondary Students.

51. There is a Negligible Negative Correlation between School Climate and Auditory Learning Styles of Higher Secondary Students.

52. There is a Negligible Negative Correlation between School Climate and Visual Learning Styles of Higher Secondary Students.
Table 5.12.1 OVERALL FINDINGS OF THE STUDY FOR DIFFERENTIAL ANALYSIS

<table>
<thead>
<tr>
<th>S. No</th>
<th>Demographic Variables</th>
<th>Learning Styles</th>
<th>School Climate</th>
<th>Academic Achievement</th>
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<tbody>
<tr>
<td>1</td>
<td>Gender</td>
<td>Kinaesthetic &amp; Visual - Not Significant</td>
<td>Significant</td>
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5.13 EDUCATIONAL IMPLICATION

The schools of today have been transformed to meet the challenges of today’s adolescent needs. In spite of the environment, social and educational transformation observed in the educational institutions need to improve the standards of input and output of the adolescents has to be more focused in relation to the capacity of the students in the institutions.

Considering the findings of the study the investigator attempts suggest the following educational implications.

Knowledge of the child’s information processing styles would enhance teaching and make the exercise fruitful. It not only shapes teaching practices, but also highlights those issues that help curriculum planners, faculty members and administration to think more deeply about their roles in facilitating students’ learning. The teaching techniques in the schools should be undertaken in consonance with the students’ styles of learning to improve their achievement. Seminars and trainings should be conducted to acquaint teachers on the various Learning Styles. Moreover, in designing teaching plans and strategies, the teacher should consider how the different Learning Styles can be incorporated in the teaching-learning process. Students must also provide input as to their preferred Learning Styles to be considered by the teacher in designing the course syllabus. To achieve a desired learning outcome, teaching and counselling interventions compatible with the students Learning Styles should be provided.

Since the girls have a more positive perception of School Climate than that of boys, the responsibility lies with the school authorities to develop this positive perception on School Climate through activity oriented method teachings, learning by doing, virtual classrooms, projects, seminars. The academic schedule can be planned by the educators to develop the cognitive thinking of the adolescents towards more positive attitude through the School Climate.

The study of Physics in the Higher Secondary stage has dwindled as the focus has been directed towards professional courses only. In order to motivate and create and interest in the Learning of Physics among the adolescents the teachers in the lower
classes can provide a clear picture of the importance of Learning Physics. The school authorities can provide counselling classes for the high school students to enable them to develop a more positive thinking towards the study in Physics. Student Friendly Environment should be created by the educational institutions so that they learn new and innovative techniques in Physics developing a passion to learn during the adolescent stage.

### 5.14 RECOMMENDATIONS

Based on the results obtained from this study, the following recommendations are made:

#### 5.14.1 Recommendations to Educators and Instructional Designers

Educators and instructional designers need to build courses and programmes that will be of benefit to students of multiple Learning Styles. Seminars, workshops and conference should be organised for teachers to familiarize and update their knowledge with the use of index of learning styles questionnaire for possible use to identity students learning styles with a view to incorporating them into basic pedagogical skills during lesson delivery.

#### 5.14.2 Recommendations to School Teachers

The result of the present study shows that there is exists a positive correlation between School Climate and Academic Achievement. The principal signal to the teachers the need for effective instruction and to the students needs to learn. A school focus approach to instruction results in improved School Climate and student learning outcomes. Teachers may find out own preferred learning styles which often becomes predominant learning styles. Teachers may find out students learning styles for better learning. Teachers and administrators are able to analyze the needs of their students, they must promote a positive school climate means the educational process is likely to become optimized for both students and teachers. Teachers may take a genuine interest in students as individuals; climate and academic performance appears to be better. Teachers may appreciate one another, where they share and plane together, then they payoff if a
positive school climate. This attitude may seem to carry over into relationship with students. Teachers' commitment to co-curricular activities, teacher-student interactions outside the classroom and the willingness of teachers to work with students outside of regular classroom may improve student-teacher relationships. In this way School Climate, Learning Styles, and academic achievement of students may be improved.

5.14.3 Recommendations to Parents

Parents and teachers may work together to promote student learning. Parents can help the school reach its goals. Schools have a clear set of expectations for parents. Parents may participate in school functions and activities, including classroom instructions. Parents may be made aware of different kinds of approaches that help their children learn best. Parents can learn about school programs, develop parenting skills, and learn how they can work with their children at home on academic achievements.

Students may improve their academic achievements and strengthen the weak areas of studies.

5.15 Suggestions for Further Study

On the basis of the findings and outcomes of this study, the following suggestions are made as scope for further research studies.

1) Experimental studies may be conducted to see the effect of the selected variables, namely Learning Styles and School Climate.
2) Similar studies on the above variables in different places like Municipalities, other Districts, and Metropolitan Cities in India may be conducted.
3) Similar studies could be conducted for High School students.
4) Action researches in the classroom process may be undertaken to improve the School Climate and Learning Styles of the students.
5) Comparative studies may be conducted on the above variables among Rural and Urban school students.
6) The relationship and profundity of components of School Climate and Learning Styles can be tested upon by conducting enhancement programmes in class room process.

5.16 CONCLUSION

When the School Climate is improved, there can be shift from good to Excellent Learning Styles and there can be a shift from the normal to very good in Academic Achievement among Students. School cannot give hundred percentages Climate but there is always room for improvement.

The present findings are derived from the empirical data collected for the present study. However from the perusal of the present findings, it is found that the School Climate had produced significant positive effects on Learning Styles. Moreover, it was found that the background Variables had produced the same effect upon the Learning Styles. Further, it is found that the School Climate had produced significant effects on Academic Achievement among Higher Secondary Students in Ariyalur District. Therefore, it may be concluded, in general, that the Higher Secondary Schools in Ariyalur District are promoting positive School Climate among Higher Secondary Students.

Learning Styles and School Climate has a direct impact on performance and success in Achievement of Students. Understanding the way students learning is the key to educational improvement. Students should aware of their learning styles. Knowledge of one’s Learning Styles can be used to increase self-awareness about their strength and weakness of learners. The teachers are aware about the learner’s different Learning Styles and understanding of these helps them in effective teaching-learning. Regular assessment and monitoring of School Climate required to stimulate the Academic Environment for promotion of quality in teaching and Learning in Schools. Initiatives are to be taken to improve the students Learning Styles and School Climate of schools through appropriate methodologies to facilitate affective learning outcomes. Hence the Schools should provide an acceptable and soothing environment for the students which in turn will provide better Learning Styles and outcomes as expected the society as a whole.