CHAPTER III

METHODOLOGY

3.1. INTRODUCTION

The chapter explains the plan and procedure of the present investigation. It consists of the sub components such as;

- Rationale of the study
- Statement of the problem
- Definition of the terms
- Objectives of the study
- Null Hypotheses
- Procedure
- Pilot study
- Final study
- Statistical Techniques
- Delimitations

3.2. RATIONALE FOR THE STUDY

The world today is filled with conflicts and threats. This approach to the problems becomes more strategic and conceptual rather than mechanical trial and error based which is influenced by the external properties that the students can now think mentally without having to work it out concretely. The students can mentally reverse a particular action. There is an increase in the attention span and the student is able to work at a task for a longer duration. During the school days, the student’s
self esteem becomes more sophisticated, laying the foundation for adolescence. Peace seems to be a question mark today. The main reason for all these ill effects is because the individuals lack personal as well as self esteem and emotional intelligence. National prosperity lies in the hands of the young pupil. Without the self esteem, it is impossible to enable the youth to build a well balanced emotional intelligence. So it is essential that these two characteristics should be imbibed in them during their course of study in the school education. This can be done only by the students who are the reformers of the young minds of the future.

Emotional intelligence can be summarized as possessing the skills or ability to detect, identify, learn from, and respond to various emotions. Emotional intelligence is essential for most of the aspects of our lives. Everyone should need this ability for schools, jobs, family, social lives etc. It could be anything from performing well. Emotional intelligence influences day-to-day problem solving behaviour in schools, community centers, business houses and organizations. At individual level, it predicts communication skills, mortality, leadership, problem solving and aesthetics. Emotional intelligence transforms the people, who manage their own feelings well and deal effectively with others, are more likely to be content in their lives, and are, therefore, more likely to retain in their lives. If students have well self esteem and emotional intelligence their academic achievement will be increased.

Self esteem, emotional intelligence and academic achievement are very much important for higher secondary students. Few studies only have been conducted in the field of self esteem, emotional intelligence and academic
achievement. So the investigator has taken up this present study for investigation.

3.3. STATEMENT OF THE PROBLEM

The investigator has selected the statement of the problem entitled as “A Study of Influence of Self-esteem and Emotional Intelligence on Academic Achievement of Higher Secondary Students in Kanyakumari District”.

3.4. DEFINITION OF THE IMPORTANT TERMS

Influence

It refers to the relationship among the variables. The variables such as self esteem, emotional intelligence and academic achievement of higher secondary students are taken for this study.

Self-esteem

According to White (1993), “Self-esteem is the respect and value of the self. It is the concept that there is real importance in what we do, think, feel and believe”. In this study it refers to, higher secondary students’ opinion about him or herself.

Emotional Intelligence

Emotional intelligence is the ability to identify, assess and control the emotions of oneself, of others and of groups. It is the ability to comprehend emotion language and to appreciate complicated relationships among emotions and the ability to regulate emotions in both ourselves and in others. It is the ability to harness emotions to facilitate various cognitive activities, such as thinking and problem solving. The emotionally intelligent person can capitalize fully upon his or her changing moods in order to best fit the task at hand.
**Academic Achievement**

Academic achievement refers to the knowledge attained or skills developed in the school subjects, usually designed by test scores or by marks assigned by teachers or by both. According to Oxford Advanced Learner’s Dictionary, achievement means a thing that somebody has done successfully, especially using their own effort and skill. The investigator has collected half yearly marks from the students.

**Higher Secondary Students**

It refers to the students studying in XI and XII standard in the higher secondary schools.

**Kanyakumari District**

Surrounded by Majestic Hills and the plains bordered by colourful sea-shores, fringed with coconut trees and paddy fields, here and there are few elevated patches of red cliffs with undulating valleys and plains between the mountainous terrain and the sea - coast, so closely interwoven with Temples and Churches lies the district, 'Kanyakumari'. (The district name is spelled as 'Kanniyakumari' in official records which are in tune with the spoken name of the district in Tamil language). With an area of 1672 sq.km, it occupies 1.29% of the total extent of Tamil Nadu. It ranks first in literacy among other districts in Tamil Nadu.

**3.5. OBJECTIVES OF THE STUDY**

The main objective of the present study is to study the influence of self esteem and emotional intelligence on academic achievement of higher secondary students in Kanyakumari District.
3.5.1. Specific Objectives

1. To study the self esteem, emotional intelligence on academic achievement of higher secondary students in Kanyakumari district.

2. To find out whether there is any significant difference between the mean scores of different dimensions of self esteem such as self respect, empathy, trustworthiness, decision making skill, self-management and in total of higher secondary students with respect to gender, class, medium of instruction, subject, location of school and residence.

3. To find out whether there is any significant difference among the mean scores of different dimensions of self esteem such as self respect, empathy, trustworthiness, decision making skill, self-management and in total of higher secondary students with respect to age, religion and caste.

4. To find out whether there is any significant difference between the mean scores of different dimensions of emotional intelligence such as self awareness, cognitive activity, social cohesion, adjustability, healthy feeling and in total of higher secondary students with respect to gender, class, medium of instruction, subject, location of school and residence.

5. To find out whether there is any significant difference among the mean scores of different dimensions of emotional intelligence such as self awareness, cognitive activity, social cohesion, adjustability, healthy feeling and in total of higher secondary students with respect to age, religion and caste.

6. To find out whether there is any significant difference between the mean scores of academic achievement of higher secondary students with respect to gender, class, medium of instruction, subject, location of school and residence.
7. To find out whether there is any significant difference among the mean scores of academic achievement of higher secondary students with respect to age, religion and caste.

8. To find out whether there is any significant association between self-esteem of higher secondary students with respect to father’s educational qualification, mother’s educational qualification, father’s occupation and family annual income.

9. To find out whether there is any significant association between emotional intelligence of higher secondary students with respect to father’s educational qualification, mother’s educational qualification, father’s occupation and family annual income.

10. To find out whether there is any significant association between academic achievement of higher secondary students with respect to father’s educational qualification, mother’s educational qualification, father’s occupation and family annual income.

11. To find out whether there is any significant relationship between the different dimensions of self-esteem and emotional intelligence and academic achievement of higher secondary students with one and others. (Zero-order Correlation).

12. To find out whether there is any significant influence of different dimensions of self esteem and emotional intelligence on academic achievement of higher secondary students. (Multiple Regression).
3.6. NULL HYPOTHESES

Based on the above objectives the following hypotheses were formulated for the present investigation.

1. There is no significant difference between the mean scores of different dimensions of self esteem such as self respect, empathy, trustworthiness, decision making skill, self management and in total of higher secondary students with respect to gender.

2. There is no significant difference between the mean scores of different dimensions of self esteem such as self respect, empathy, trustworthiness, decision making skill, self management and in total of higher secondary students with respect to medium of instruction.

3. There is no significant difference between the mean scores of different dimensions of self esteem such as self respect, empathy, trustworthiness, decision making skill, self management and in total of higher secondary students with respect to class.

4. There is no significant difference between the mean scores of different dimensions of self esteem such as self respect, empathy, trustworthiness, decision making skill, self management and in total of higher secondary students with respect to subject of study.

5. There is no significant difference between the mean scores of different dimensions of self esteem such as self respect, empathy, trustworthiness, decision making skill, self management and in total of higher secondary students with respect to location of school.
6. There is no significant difference between the mean scores of different dimensions of self esteem such as self respect, empathy, trustworthiness, decision making skill, self management and in total of higher secondary students with respect to residence.

7. There is no significant difference among the mean scores of different dimensions of self esteem such as self respect, empathy, trustworthiness, decision making skill, self management and in total of higher secondary students with respect to age.

8. There is no significant difference among the mean scores of different dimensions of self esteem such as self respect, empathy, trustworthiness, decision making skill, self management and in total of higher secondary students with respect to religion.

9. There is no significant difference among the mean scores of different dimensions of self esteem such as self respect, empathy, trustworthiness, decision making skill, self management and in total of higher secondary students with respect to caste.

10. There is no significant difference between the mean scores of different dimensions of emotional intelligence such as self awareness, cognitive activity, social cohesion, adjustability, healthy feeling and in total of higher secondary students with respect to gender.

11. There is no significant difference between the mean scores of different dimensions of emotional intelligence such as self awareness, cognitive activity, social cohesion, adjustability, healthy feeling and in total of higher secondary students with respect to class.
12. There is no significant difference between the mean scores of different dimensions of emotional intelligence such as self awareness, cognitive activity, social cohesion, adjustability, healthy feeling and in total of higher secondary students with respect to medium of instruction.

13. There is no significant difference between the mean scores of different dimensions of emotional intelligence such as self awareness, cognitive activity, social cohesion, adjustability, healthy feeling and in total of higher secondary students with respect to subject.

14. There is no significant difference between the mean scores of different dimensions of emotional intelligence such as self awareness, cognitive activity, social cohesion, adjustability, healthy feeling and in total of higher secondary students with respect to location of school.

15. There is no significant difference between the mean scores of different dimensions of emotional intelligence such as self awareness, cognitive activity, social cohesion, adjustability, healthy feeling and in total of higher secondary students with respect to residence.

16. There is no significant difference among the mean scores of different dimensions of emotional intelligence such as self awareness, cognitive activity, social cohesion, adjustability, healthy feeling and in total of higher secondary students with respect to age.

17. There is no significant difference among the mean scores of different dimensions of emotional intelligence such as self awareness, cognitive activity, social cohesion, adjustability, healthy feeling and in total of higher secondary students with respect to religion.
18. There is no significant difference among the mean scores of different dimensions of emotional intelligence such as self awareness, cognitive activity, social cohesion, adjustability, healthy feeling and in total of higher secondary students with respect to caste.

19. There is no significant difference between the mean scores of academic achievement of higher secondary students with respect to gender.

20. There is no significant difference between the mean scores of academic achievement of higher secondary students with respect to class.

21. There is no significant difference between the mean scores of academic achievement of higher secondary students with respect to medium of instruction.

22. There is no significant difference between the mean scores of academic achievement of higher secondary students with respect to subject.

23. There is no significant difference between the mean scores of academic achievement of higher secondary students with respect to location of school.

24. There is no significant difference between the mean scores of academic achievement of higher secondary students with respect to residence.

25. There is no significant difference among the mean scores of academic achievement of higher secondary students with respect to age.

26. There is no significant difference among the mean scores of academic achievement of higher secondary students with respect to religion.

27. There is no significant difference among the mean scores of academic achievement of higher secondary students with respect to caste.
28. There is no significant association between self esteem of higher secondary students and their father’s educational qualification.

29. There is no significant association between self esteem of higher secondary students and their mother’s educational qualification.

30. There is no significant association between self esteem of higher secondary students and their father’s occupation.

31. There is no significant association between self esteem of higher secondary students and their family annual income.

32. There is no significant association between emotional intelligence of higher secondary students and their father’s educational qualification.

33. There is no significant association between emotional intelligence of higher secondary students and their mother’s educational qualification.

34. There is no significant association between emotional intelligence of higher secondary students and their father’s occupation.

35. There is no significant association between emotional intelligence of higher secondary students and their family annual income.

36. There is no significant association between academic achievement of higher secondary students and their father’s educational qualification.

37. There is no significant association between academic achievement of higher secondary students and their mother’s educational qualification.

38. There is no significant association between academic achievement of higher secondary students and their father’s occupation.

39. There is no significant association between academic achievement of higher secondary students and their family annual income.
40. There is no significant relationship between academic achievement and dimensions of self esteem such as self respect, empathy, trustworthiness, decision making and self management and dimensions of emotional intelligence such as self awareness, cognitive activity, social cohesion, adjustability and healthy feeling of the higher secondary students.

3.7. POPULATION OF THE STUDY

The population of the study is all higher secondary students who are studying in the higher secondary schools of Kanyakumari district.

3.7.1. Sample

The investigator has used simple random sampling technique for selecting the sample for his investigation. The investigator randomly selected 1050 higher secondary students who are studying in the schools of Kanyakumari district. There are three educational districts in Kanyakumari district namely Nagercoil educational district, Thuckalay educational district and Kuzhithurai educational district. In Nagercoil educational district, there are 54 higher secondary schools, out of which 18 are government schools, 17 are government aided schools and 19 are matriculation higher secondary schools; in Thuckalay educational district, there 62 higher secondary schools, out of which 19 are government schools, 28 are government aided schools and 15 are matriculation higher secondary schools; and in Kuzhithurai educational district there are 62 higher secondary schools, out of which 16 are government schools, 27 are government aided schools and 19 are matriculation higher secondary schools. In total there are 178 higher secondary schools in Kanyakumari district. Out of which only 1050 students from 35 higher secondary schools were selected randomly for this present investigation. List of schools appended in the appendix I.
3.8. CHARACTERISTICS OF THE SAMPLE

Table 3.1

Distribution of the Respondents with respect to Gender

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Gender</th>
<th>No. of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Boys</td>
<td>495</td>
<td>47.14</td>
</tr>
<tr>
<td>2.</td>
<td>Girls</td>
<td>555</td>
<td>52.86</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1050</td>
<td>100.00</td>
</tr>
</tbody>
</table>

The above table shows that the number of higher secondary students selected for present investigation with respect to gender. Out of 1050 respondents, 555 (52.86%) were girls and the remaining 495 (47.14%) were boys.

Diagram 3.1

Distribution of the Respondents with respect to Gender
Table 3.2

Distribution of the Respondents with respect to Class

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Class</th>
<th>No. of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>XI standard</td>
<td>450</td>
<td>42.86</td>
</tr>
<tr>
<td>2.</td>
<td>XII standard</td>
<td>600</td>
<td>57.14</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1050</td>
<td>100.00</td>
</tr>
</tbody>
</table>

The above table shows that the number of higher secondary students selected for present investigation with respect to class. Out of 1050 respondents, 600 (57.14%) were XII standards and the remaining 400 (42.86%) were XI standard.

Diagram 3.2

Distribution of the Respondents with respect to Class
Table 3.3

Distribution of the Respondents with respect to Medium of Instruction

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Medium of Instruction</th>
<th>No. of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tamil</td>
<td>840</td>
<td>80.00</td>
</tr>
<tr>
<td>2.</td>
<td>English</td>
<td>210</td>
<td>20.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1050</td>
<td>100.00</td>
</tr>
</tbody>
</table>

The above table shows that the number of higher secondary students selected for present investigation with respect to medium of instruction. Out of 1050 respondents, 840 (80.00%) were Tamil medium and the remaining 210 (20.00%) were English medium.

Diagram 3.3

Distribution of the Respondents with respect to Medium of Instruction
Table 3.4

Distribution of the Respondents with respect to Subject

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Subject</th>
<th>No. of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Arts</td>
<td>420</td>
<td>40.00%</td>
</tr>
<tr>
<td>2.</td>
<td>Science</td>
<td>630</td>
<td>60.00%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1050</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

The above table shows that the number of higher secondary students selected for present investigation with respect to subject. Out of 1050 respondents, 420 (40.00%) were arts group and the remaining 630 (60.00%) were science group.

Diagram 3.4

Distribution of the Respondents with respect to Subject

![Pie chart showing distribution of respondents between arts and science groups]
Table 3.5

Distribution of the Respondents with respect to Location of School

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Location of School</th>
<th>No. of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Rural</td>
<td>570</td>
<td>54.29</td>
</tr>
<tr>
<td>2.</td>
<td>Urban</td>
<td>480</td>
<td>45.71</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1050</td>
<td>100.00</td>
</tr>
</tbody>
</table>

The above table shows that the number of higher secondary students selected for present investigation with respect to location of school. Out of 1050 respondents, 570 (54.29%) were studying in rural area schools and the remaining 480 (45.71%) were studying in urban area schools.

Diagram 3.5

Distribution of the Respondents with respect to Location of School
### Table 3.6

**Distribution of the Respondents with respect to Residence**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Residence</th>
<th>No. of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Hostellers</td>
<td>216</td>
<td>20.57</td>
</tr>
<tr>
<td>2.</td>
<td>Day scholars</td>
<td>834</td>
<td>79.43</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>1050</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

The above table shows that the number of higher secondary students selected for present investigation with respect to residence. Out of 1050 respondents, 834 (79.43%) were day scholars and the remaining 216 (20.57%) were hostellers.

### Diagram 3.6

**Distribution of the Respondents with respect to Residence**

[Pie chart showing 79.43% Day Scholars and 20.57% Hostellers]
Table 3.7

Distribution of the Respondents with respect to Age

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Age</th>
<th>No. of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>16 years</td>
<td>429</td>
<td>40.86</td>
</tr>
<tr>
<td>2.</td>
<td>17 years</td>
<td>462</td>
<td>44.00</td>
</tr>
<tr>
<td>3.</td>
<td>Above 17 years</td>
<td>159</td>
<td>15.14</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1050</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Out of 1050 higher secondary students, 429 (40.86%) of them belong to the age group of 16 years, 462 (44.00%) of them belong to the age group 17 years and the remaining 159 (15.14%) of them belong to the age group of above 17 years.

Diagram 3.7

Distribution of the Respondents with respect to age
Table 3.8

Distribution of the Respondents with respect to Religion

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Religion</th>
<th>No. of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Hindu</td>
<td>315</td>
<td>30.00</td>
</tr>
<tr>
<td>2.</td>
<td>Christian</td>
<td>630</td>
<td>60.00</td>
</tr>
<tr>
<td>3.</td>
<td>Muslim</td>
<td>105</td>
<td>10.00</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1050</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Out of 1050 higher secondary students, 315 (30.00%) of them belong to Hindu religion, 630 (60.00%) of them belong to Christian religion and the remaining 105 (10.00%) of them belong Muslim religion.

Diagram 3.8

Distribution of the Respondents with respect to Religion

- Hindu: 30%
- Christian: 60%
- Muslim: 10%
Table 3.9

Distribution of the Respondents with respect to Caste

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Caste</th>
<th>No. of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>OC</td>
<td>110</td>
<td>10.48</td>
</tr>
<tr>
<td>2.</td>
<td>BC</td>
<td>476</td>
<td>45.33</td>
</tr>
<tr>
<td>3.</td>
<td>MBC</td>
<td>246</td>
<td>23.43</td>
</tr>
<tr>
<td>4.</td>
<td>SC/ST</td>
<td>218</td>
<td>20.76</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1050</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Out of 1050 higher secondary students, 476 (45.33%) of them belong to BC, 246 (23.43%) of them belong to MBC, 218 (20.76%) of them belong SC/ST and the remaining 110 (10.48%) of them belong to OC.

Diagram 3.9

Distribution of the Respondents with respect to Caste
### Table 3.10

**Distribution of the Respondents with respect to Father’s Educational Qualification**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Educational Qualification</th>
<th>No. of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Illiterate</td>
<td>158</td>
<td>15.05</td>
</tr>
<tr>
<td>2.</td>
<td>School Level</td>
<td>349</td>
<td>33.24</td>
</tr>
<tr>
<td>3.</td>
<td>College Level</td>
<td>351</td>
<td>33.43</td>
</tr>
<tr>
<td>4.</td>
<td>Professional Level</td>
<td>192</td>
<td>18.29</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>1050</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

Out of 1050 higher secondary students, 351 (33.43%) of the students’ father’s educational qualification are college level, 349 (33.24%) of them are school level, 192 (18.29%) of them are professional level and the remaining 158 (15.05%) of them are illiterate.

### Diagram 3.10

**Distribution of the Respondents with respect to Father’s Educational Qualification**

- Illiterate: 15.05%
- School Level: 33.24%
- College Level: 33.43%
- Professional Level: 18.29%

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Table 3.11
Distribution of the Respondents with respect to
Mother’s Educational Qualification

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Educational Qualification</th>
<th>No. of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Illiterate</td>
<td>174</td>
<td>16.57</td>
</tr>
<tr>
<td>2.</td>
<td>School Level</td>
<td>395</td>
<td>37.62</td>
</tr>
<tr>
<td>3.</td>
<td>College Level</td>
<td>327</td>
<td>31.14</td>
</tr>
<tr>
<td>4.</td>
<td>Professional Level</td>
<td>154</td>
<td>14.67</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1050</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

Out of 1050 higher secondary students, 395 (37.62%) of the students’ mother’s educational qualification are college level, 327 (31.14%) of them are school level, 174 (16.57%) of them are illiterate and the remaining 154 (14.67%) of them are professional level.

Diagram 3.11
Distribution of the Respondents with respect to
Mother’s Educational Qualification
Table 3.12

Distribution of the Respondents with respect to Father’s Occupation

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Occupation</th>
<th>No. of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Self-Employee</td>
<td>254</td>
<td>24.19</td>
</tr>
<tr>
<td>2.</td>
<td>Government</td>
<td>517</td>
<td>49.24</td>
</tr>
<tr>
<td>3.</td>
<td>Private</td>
<td>279</td>
<td>26.57</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1050</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

Out of 1050 higher secondary students, 517 (49.24%) of them are government employees, 279 (26.57%) of them are private employees and the remaining 254 (24.19%) of them are self-employees.

Diagram 3.12

Distribution of the Respondents with respect to Father’s Occupation
Table 3.13

Distribution of the Respondents with respect to Family Annual Income

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Annual Income (in Rs.)</th>
<th>No. of Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Up to 1 lakh</td>
<td>309</td>
<td>29.43</td>
</tr>
<tr>
<td>2.</td>
<td>1 lakh - 3 lakhs</td>
<td>612</td>
<td>58.29</td>
</tr>
<tr>
<td>3.</td>
<td>Above 3 lakhs</td>
<td>129</td>
<td>12.29</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1050</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Out of 1050 higher secondary students, 612 (58.29%) of the students’ family annual income was Rs. 1 lakh - 3 lakhs, 309 (29.43%) of them was Up to Rs. 1 lakh and the remaining 129 (12.29%) of them are having annual income of above Rs.3 lakhs.

Diagram 3.13

Distribution of the Respondents with respect to Family Annual Income
3.9. TOOLS USED

The tools used for the present study was prepared and validated by the investigator and the guide titled as (1) “Self-Esteem Scale” and (2) “Emotional Intelligence Scale” to measure the self esteem and emotional intelligence of higher secondary students.

The first tool is a five point scale consisting of 100 items with five dimensions consisting of 20 items in each dimension. The dimensions are; (1) self-respect, (2) empathy, (3) trustworthiness, (4) decision making skill and (5) self management.

The second tool is also a five point scale consisting of 100 items with five dimensions consisting of 20 items in each dimension. The dimensions are; (1) self awareness, (2) cognitive activity, (3) social cohesion, (4) adjustability and (5) healthy feeling.

Pilot Study

The pilot study was conducted through 50 higher secondary students studying in Nagercoil educational district. The respondents were given a brief account of the study. The data gathering tools were administered. They were asked to go through the items. Item index table was prepared. The items in the upper 35% and lower 35% were selected for the final form.

Validity of the Tools

To establish content validity, both the scales were well scrutinized and checked by the experts in the education field; a few modifications were done based on their comments, regarding the language, suitability and relevance. Based on the
suggestions of the experts, some of the items were modified. Thus the content validity of the scale was affirmed.

Reliability of the Tools

For getting reliability co-efficient of the inventories, they were administered to a sample of 50 higher secondary students studying in Nagercoil educational district. The researcher applied test-retest method. Both the scales were administered to 50 higher secondary students prior to and after a period of 20 days. The responses were scored and co-efficient of correlation between two sets of scores were calculated. The reliability co-efficient were found and given in the following table 3.14 and table 3.15.

Table 3.14

Test-Retest Reliability of Self Esteem Scale

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Dimension of Self Esteem Scale</th>
<th>Reliability Co-efficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Self-respect</td>
<td>0.82</td>
</tr>
<tr>
<td>2.</td>
<td>Empathy</td>
<td>0.74</td>
</tr>
<tr>
<td>3.</td>
<td>Trustworthiness</td>
<td>0.81</td>
</tr>
<tr>
<td>4.</td>
<td>Decision Making</td>
<td>0.82</td>
</tr>
<tr>
<td>5.</td>
<td>Self Management</td>
<td>0.79</td>
</tr>
<tr>
<td></td>
<td>Self-Esteem</td>
<td>0.83</td>
</tr>
</tbody>
</table>
Table 3.15

Test-Retest Reliability of Emotional Intelligence Scale

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Dimension of Emotional Intelligence Scale</th>
<th>Reliability Co-efficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Self awareness</td>
<td>0.83</td>
</tr>
<tr>
<td>2.</td>
<td>Cognitive activity</td>
<td>0.77</td>
</tr>
<tr>
<td>3.</td>
<td>Social Cohesion</td>
<td>0.79</td>
</tr>
<tr>
<td>4.</td>
<td>Adjustability</td>
<td>0.81</td>
</tr>
<tr>
<td>5.</td>
<td>Healthy feeling</td>
<td>0.88</td>
</tr>
<tr>
<td></td>
<td>Emotional Intelligence</td>
<td>0.86</td>
</tr>
</tbody>
</table>

Scoring

The scoring was done with the key which was prepared by the investigator for both the scales. In the “Self-Esteem Scale”, 80 items are positive worded and 20 items are negative worded and the score is given as 5, 4, 3, 2 and 1 respectively for the positive items and 1, 2, 3, 4, 5 for negative items. Similarly in “Emotional Intelligence Scale”, 80 items are positive worded and 20 items are negative worded and the score is given as 5, 4, 3, 2 and 1 respectively for the positive items and 1, 2, 3, 4, 5 for negative items. In both the scales, an individual may get a lowest score is 100; and the possibility of highest score is 500.

Academic Achievement Marks

The tenth standard annual examination average scores of XI standard students and XI standard annual examination average scores of XII standard were taken as academic achievement score for each student from the respective schools.
3.10. METHOD ADOPTED IN THE PRESENT STUDY

In the present study, the investigator has chosen survey method for analysing the influence of self esteem and emotional intelligence on academic achievement of higher secondary students in the study area. Survey is a procedure in which data are systematically collected from a population through some direct solicitations such as face to face interview, questionnaire or observation schedule etc. The investigator selected 1050 higher secondary students studying in the educational districts of Kanyakumari district of Tamil Nadu.

3.11. SCHEME OF DATA ANALYSIS

The responses of the higher secondary students were scored and treated with mathematical techniques to analyse the objectives formulated for the study. The critical ratio (‘t’ test) test was applied to find out the significant difference between the mean scores of different dimensions of self-esteem, emotional intelligence and academic achievement with respect to gender, class, medium of instruction, subject, location of school and residence. The ‘F’ ratio was applied to find out the significant difference among the mean scores of different dimensions of self-esteem, different dimensions of emotional intelligence and academic achievement with respect to with respect to age, religion and caste. Wherever the ‘F’ ratio was found to be significant, Scheffe’s test was used to find out which of the paired mean differences are significant. To find out the association between self-esteem, emotional intelligence
and academic achievement of higher secondary students with respect to father’s educational qualification, mother’s educational qualification, father’s occupation and family annual income, Chi-square test was used. To find out the relationship between academic achievement and the different dimensions of self esteem and emotional intelligence, Karl Pearson Product Moment Correlation technique was used. To find out the influence of the dimensions of self esteem and the dimensions of emotional intelligence on academic achievement of higher secondary students, multiple regression analysis was used.

3.12. STATISTICAL TECHNIQUES

For analyzing the data, the investigator made use of the following major statistical techniques.

1) Mean
2) Standard Deviation
3) Percentage Analysis
4) Test of Significance (t-Test)
5) F-test (ANOVA)
6) Scheffe’s Test
7) Chi-Square test
8) Correlation Technique
9) Multiple regression analysis
1. Mean

Mean is the simplest measurement of Central Tendency and is a widely used measure. Its chief use consists in summarizing the essential features of a series and in enabling data to be compared. It is more stable and suitable for further calculations.

Mean is calculated using the formula,

\[ \bar{X} = \frac{\sum X}{N} \]

where,

- \( N \) = number of subjects.
- \( X \) = arithmetic mean.
- \( \sum X \) = sum of the series of subjects.

2. Standard Deviation

It is widely used measures of dispersion of a series and is defined as the square root of average of squares of deviations, when such deviations for the values of individual items in a series are obtained from the arithmetic average. It is least affected by sampling fluctuations.

Standard Deviation is calculated using the formula,

\[ \sigma = \frac{C}{N} \sqrt{N \sum X^2 - (\sum X)^2} \] (or) \[ C \sqrt{\frac{\sum X^2}{N} - \left( \frac{\sum X}{N} \right)^2} \]

Where,

- \( N \) = Number of individuals
- \( X \) = Number of scores
C = Class interval

3. Percentage Analysis

High = Value above the mean + standard deviation

Low = Value below the mean – standard deviation

Medium = Value between mean ± standard deviation

4. Test of significance (t-test)

This test is used to find the significant level of difference between two groups of populations. From the mean and standard deviation of the two groups, the t-values are calculated. If the obtained t-value is greater than 1.96 and above, then the significant level of difference is 0.05. If the value is below 1.96, the difference is not significant at 0.05 level.

The t-test is calculated using the formula,

\[
t = \frac{|M_1 - M_2|}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}}
\]

Where,

\(M_1\) = Mean of the □ sample

\(M_2\) = Mean of the □□ sample

\(\sigma_1\) = S.D of the □ sample

\(\sigma_2\) = S.D of the □□ sample

\(N_1\) = Total number of frequency of the □ sample

\(N_2\) = Total number of frequency of the □□ sample
5. F-test

\[ F - \text{test} = \frac{\text{MS Between the Groups}}{\text{MS within the Groups}} \]

6. Scheffe’s Test

If the F ratio is significant, then Scheffe test is used to find the significant among the groups.

\[ C.I = \sqrt{(k-1) \times F_{(\text{Table})} \times MS_w \times \left( \frac{1}{n_1} + \frac{1}{n_2} \right)} \]

Where,

- **C.I** = Confidence internal
- **K** = Number of groups
- **\( F_{(\text{Table})} \)** = F value at 5% level
- **MSw** = Mean Squares Within
- **\( n_1 \)** = Number of sample in the first group
- **\( n_2 \)** = Number of sample in the second group

7. Chi-Square Test

\[ \chi^2 = \sum \frac{(O - E)^2}{E} \]

Where, **O** = Observed Frequency

**E** = Expected Frequency

8. Correlation Technique
Correlation is used for measuring the degree of relationship between two variables. It shows us the extent to which values in one variable are linked or related to values in another variable.

Correlation coefficient is calculated using the formula,

\[ r = \frac{N \Sigma XY - \Sigma X \Sigma Y}{\sqrt{\left(N \Sigma X^2 - (\Sigma X)^2\right) \left(N \Sigma Y^2 - (\Sigma Y)^2\right)}} \]

where,

- \( r \) = correlation coefficient
- \( \Sigma X \) = Sum of X score
- \( \Sigma Y \) = Sum of Y score
- \( \Sigma X^2 \) = Sum of squares of X score
- \( \Sigma Y^2 \) = Sum of squares of Y score
- \( \Sigma XY \) = Sum of product of X and Y
- \( N \) = Number of respondents

9. Multiple Regression Analysis

9.1. Regression Equation in obtained scores form (\( X_c \))

\[ X_c = a_0 + a_1 X_1 + a_2 X_2 + a_3 X_3 + a_4 X_4 + a_5 X_5 + a_6 X_6 + a_7 X_7 + a_8 X_8 + a_9 X_9 + a_{10} X_{10} \]

Where, \( X_i \) = Independent variables,

- \( a_i \) = Co-efficient of independent variables for \( i = 1 \) to \( 10 \); and
- \( a_0 \) = Regression Constant
2. Regression Equation in standard scores form ($Z_c$)

$$Z_c = a_1 Z_1 + a_2 Z_2 + a_3 Z_3 + a_4 Z_4 + a_5 Z_5 + a_6 Z_6 + a_7 Z_7 + a_8 Z_8 + a_9 Z_9 + a_{10} Z_{10}$$

Where, $Z_i$ = Independent variables, and

$$a_i = \text{Co-efficient of independent variables for } i = 1 \text{ to } 10$$

3.13. DELIMITATIONS

1. The study was conducted on higher secondary students studying in Kanyakumari district only.

2. The study was conducted only in three educational districts namely, Nagercoil, Thuckalay and Kuzhithurai of Kanyakumari.

3. Only a few variables were selected for this study.

4. Only a few dimensions were selected for this study and

5. The study was conducted on a population of 1050 higher secondary students only.

3.14. CONCLUSION

The investigator has made an attempt to study the influence of self esteem and emotional intelligence on academic achievement of higher secondary students in Kanyakumari district. The data was collected from the selected sample of the respondents using two scales. The collected data were analysed and interpreted using tabular columns in the ensuing chapter.