CHAPTER-III

METHODOLOGY OF INVESTIGATION
Introduction:

This chapter describes design of the study, various procedures adopted for the construction of data gathering instruments to measure different variables which are included in the study and methods adopted in the selection of sample, collection of data, mode of scoring and the different statistical techniques employed in the analysis of data.

Recognizing the importance of English in Indian atmosphere, a study has been undertaken to find out the achievement level in English at secondary school. The achievement of secondary school pupils in English was low. To find out the factors which influence the achievement of secondary school pupils in English was the main research problem in the study. Investigation has been designed based on this problem.

3.1 Sample Selection:

The survey is an attempt to analyze, interpret and report the status of an institution group or area in order to guide practice in the immediate future. Tukmen (1978) expressed about survey research “A potentially useful technique in education as it is in public opinion polling and verifying the consequence and the values in survey as a means of gathering data is not to be denied”.

The survey is very useful in doing what it is designed to do i.e. it gathers descriptive data which people can provide from their own experiences. The survey is often the only means through which opinions, attitudes, suggestions and other such data can be obtained. Information can be obtained in two ways in the survey method. It can be obtained directly or through some kind of paper and pencil instrument.
In any social research various methods are used for selection and drawing of samples. After a detailed study of all these methods and consider the variables selected for the research work, the stratified multi-stage random sampling was considered most suitable.

It is extremely important to think about the size of the sample to be selected. If the sample is either too small or too large, it will make the study difficult and also make the results untenable. Practical considerations and accuracy also play a vital role in determining the size of the sample. Every study is guided by certain practical considerations such as time, resources, accessibility of the data etc. Generally it is believed that a large sized sample generally produces accurate results. This of course, depends upon the sampling technique used. The sampling method also determines the size of the sample. When random sampling method is used, the samples have to be large.

In the present investigation a survey was conducted in Kurnool, Nellore and Chittoor districts of Andhra Pradesh. A stratified multi-stage random sampling technique was employed in the selection of the sample, after taking into consideration of various factors which influence the size of the sample. It was decided that an ideal sample would consist of six hundred pupils. This sample is taken to avoid unnecessary expenditure and large enough to avoid intolerable sample errors.

In this study the first stratum the geographical areas were considered. These areas were divided into rural and urban areas including private and government schools. These schools were mainly categorized into two types' residential schools and Non-Residential schools. From each district 20 schools were taken. From each school 10 students were taken at random. Thus the total sample from 60 schools consisted of 600 students from three districts.
Total sample of 600 pupils in X class were taken from the urban and rural areas of Zilla Parishad High Schools, Govt. High Schools, Private High Schools, Residential Schools and Private Residential Schools. Out of 600 samples 300 were boys and 300 were girls. And the entire sample was of Telugu medium. Among 60 schools 40 were non residential secondary schools and 20 were residential secondary schools.

3.2 Data Collection:

The selection and use of tools can be done in two ways. The first one is to construct a tool independently by the investigator for his/her own study. The second way of selection and use of tools is right selection of tools from already standardized ones available in the field of study. Some people believe that some of the instruments available do not measure up to their standards. Hence, new ones have to be prepared. In some instances consideration should be given to the logistics of the situation, locking the time and financial resources cannot expect to produce a better instrument. In these cases the most logical procedure that one can follow is to choose the best instrument available for this purpose (pearl).

3.3 Objectives of the study:

1. To develop a competency based achievement test for measuring the achievement in English language among secondary school learners.

2. To find out Components of vocabulary, Sentence formation, Grammar, reading comprehension and written expression abilities in language achievement.

3. To find out the relationship between English achievement test and other school subjects.

4. To compare the achievement of students in English in rural, Urban, Residential and Non-Residential schools.
5. To study the personal factors, family factors and Institutional factors influence on achievement of students in English.

6. To study the influence of students study habits of students and their achievement in English.

7. To study the association between teachers Performance and students competency.

3.4 Hypotheses of the Study:

On the basis of the objectives the following hypotheses were formulated.

1. The components included in the English achievement test are not interrelated with each other.

2. There exists no relationship between achievement of students in English and other school subjects.

3. There exists no relationship between achievement of students in English and gender.

4. There exists no association between the achievement of students in English and the birth order.

5. There exists no relationship between study habits of students and achievement in English.

6. There exists no relationship between personality traits and achievement of students in English.

7. There exists no relationship between achievement of students in English and location of the family i.e. rural and urban.

8. There exists no relationship between the size of the family and achievement of students in English.
9. There exists no association between achievement of students in English and educational level of the family.

10. There exists no relationship between occupation levels of the family and achievement of students in English.

11. There exists no relationship between income levels of the family and achievement of students in English.

12. There exists no significant association between the achievement of students in English and social status of the family.

13. There exists no significant association between home reading facilities and achievement of students in English.

14. There exists no significant association between type of the school and achievement of students in English.

15. There exists no significant difference between the management of the school and achievement of students in English.

16. There exists no relationship between the strength of the school and achievement of students in English.

17. There exists no association between physical facilities of the school and achievement of students in English.

18. There exists no association between instructional facilities of the school and achievement of students in English.

19. There exists no association between library facilities in the school and achievement of students in English.

20. There exists no association between games and sports in school and achievement of students in English.

21. There exists no association between cultural activities and literary clubs in school and achievement of students in English.
22. There exists no association between social activities in school and achievement of students in English.

23. There exists no association between educational qualifications of English teachers and achievement of students in English.

24. There exists no association between experience of English teachers and achievement of students in English.

25. There exists no association between in service training programmes attended by the teachers and achievement of students in English.

26. There exists no association between evaluation procedures followed by the English teachers and achievement of students in English.

3.5 Variables included in the Study

Dependent variable

Achievement test in English included five components: Vocabulary, Sentence formation, Grammar, Reading comprehension and written expression. This was taken as a dependent variable.

Independent variables

1. Personal variables:

   (a) Gender

   (b) Birth order

   (c) Study habits of students

   (d) Personality characteristics:

2. Family variables:

   (a) Location of the family
(b) Size of the family  
(c) Educational levels of the family  
(d) Occupation levels of the family  
(e) Income levels of the family  
(f) Socio economic status of the family  
(g) Home reading facilities

3. Institutional related variables:  
(a) Type of management  
(b) Strength of the school  
(c) Physical facilities of the school  
(d) Instructional facilities of the school  
(e) Library facilities  
(f) Games and sports  
(g) Cultural activities and literary clubs  
(h) Social activities  
(i) Teacher factors  
   (i) Qualifications of teachers who teaches English  
   (ii) Experience of Teachers  
   (iii) Participation of teachers in in-service training programmes  
   (iv) Evaluation procedures followed by the teachers
A brief description of the Variables:

Dependent Variable:

Achievement test is the main means available to the teacher and the students for assessing progress. The primary goal of achievement test is to measure past learning that is the accumulated knowledge and skills of an individual in a particular field or fields. Achievement tests are used to find out how much language material in a particular course has been mastered by students.

The English achievement test was prepared by the investigator to find out the achievement levels of students in English test was conducted and marks were analyzed to find out all components which included in the test were interrelated or not.

Independent Variables:

Gender:

Student of both the genders (male and female) were included in the study to find out whether there was any significant difference between girls and boys in their achievement in English language.

Birth order:

Student's birth order is taken as a variable to find out whether birth order has got any influence on achievement of students in English.

Study habits:

Study habits inventory was conducted to find out the relativity with the achievement.

Personality characteristics:

Personality questionnaire form A was used to study the relationship between personality traits and achievement of students in English.
Locality:

Depending upon the native place of the students they are divided into two categories as per revenue norms. 1. Rural, 2. Urban. The towns with municipalities and urban panchayats considered as Urban. The villages with gram panchayats considered as rural.

Size of the family:

Members of the family considered the size of the family. This is taken as a variable to study whether there is significant relationship between size of the family and students achievement in English.

Educational level of the family:

It was observed in the review of past research that the relationship between parent’s education and academic achievement was complex and contradictory. Hence education level of the parents considered as one of the independent variable.

Family Occupation:

Students whose parents hold different occupations are different in their performance as it was obtained from the review of literature. To test the observations made by earlier researchers, the variable was considered in the study.

Income of the Family:

The income of the student’s parents was considered as one of the variables in the present study to test whether there is significance on the achievement of students in English.

Caste:

Caste is a unique human division in India the caste of the trainees was considered as one of the variable for the study. Students belonging to Scheduled Caste (SC), Scheduled Tribe (ST), Backward Communities (BC) and other Communities (OC) are included in the study.
Home reading facilities:

Reading facilities available at home for students are considered as the variable to study the relationship between the students achievement in English and reading facilities available for students at home.

Type of management:

The type of management under which the institution is being controlled may have influence on the levels of student's achievement in English. Schools are managed by two agencies. (1) Government and (2) Private

Type of School:

Schools were divided into two categories residential and non residential schools.

Residential Schools:

In residential school the pupils reside in school premises with their teachers instead of coming from their houses daily. Here the pupils spend all their time either in the school campus or in the hostels and pursues studies under the constant supervision of teachers. Such schools were considered residential schools.

Non-Residential Schools:

The pupils of these schools will be in the school campus only during instructional hours and spend their remaining time at home or at other places. Such schools were considered Non-Residential schools.

Strength of the school:

Strength of the school is taken as variable to study the achievement of students in English based on the strength of the school.
Physical facilities:

Physical facilities of schools were categorized to study the relationship between physical facilities of the school and achievement of students in English.

Instructional facilities:

Instructional facilities of the school were categorized and study the relationship between the achievement of students in English and instructional facilities of the school.

Library facilities:

Library facilities of schools were taken as a variable and study the relationship between achievement of students in English and library facilities available in the school.

Games and Sports:

Participation of students in games and sports were taken as a variable to study the relationship in achievement of students in English.

Cultural activities and social activities:

These were taken as variables to study relationship between achievement of students in English and cultural activities, social activities in the school.

Teachers’ factors:

Qualification, experience, training programmes attended and evaluation procedures of English teachers used in the class were considered as variables and studied how they are influenced on achievement of students in English.

3.6 Data gathering tools of the study:

The tools used to gather data for the investigation were:
1. Achievement test in English

2. Study habits inventory

3. High school personality questionnaire

4. Personal data sheets for students

5. Questionnaire for heads of institutions

6. Questionnaire for secondary school teachers of English

3.6.1 English Achievement test:

An achievement test is the main means available to the teacher and the students for assessing progress. These tests aim to find out how much each student and the class as a whole have learnt of what has been taught. It provides feedback on student's progress to both the teacher and the students.

The primary goal of achievement test is to measure past learning that is the accumulated knowledge and skills of an individual in a particular field or fields. Achievement tests are used to find out how much language material in a particular course has been mastered by students. (Moller, 1975).

Bell (1981) refers to achievement test as those seeking to determine the extent to which a learner has mastered the contents of a particular course. For this reason he says that should contain only test items based on what has been taught.

Achievement tests attempt to measure what an individual learnt based on his or her present level of performance. Most tests used in schools are achievement tests. They are particularly helpful in determining individual or group status in academic learning. Achievement test scores are used in placing advancing or retaining students at particular grade levels. They are used in diagnosing strengths and weakness as a basis for awarding prizes scholarships or degrees.
Frequently achievement test scores are used in evaluating the influence of course of study, teacher, teaching methods and other factors considered to be significant in educational factors which are considered to be significant in educational practice. In using test for evaluative purpose, it is important not to generalize beyond the specific elements measured. For example to identify effective teaching exclusively with the limited products measured by the ordinary achievement test would be to define effective teaching too narrowly. It is essential that researchers recognize that the elements of a situation under appraisal need to be evaluated on the basis of a number of criteria not merely on a few limited aspects.

The following steps were followed in constructing the achievement test used in this investigation:

The objectives of teaching English at secondary school level were examined by the investigator. The experts in the area of educational research, educational administration, curriculum design and authors of the text books were also consulted.

As the English language is getting consolidated as a global language it is indispensable for all the countries to teach and learn English. It is very essential for a multilingual and developing country like India to learn English language. As English is taught as a second language in almost all the schools of Andhra Pradesh the objectives of teaching English have been emphasized. The present Syllabus in English text books of VIII, IX and X classes were studied in relation to various topics covered in teaching English to identity the relevant items included in the test. Basically X class English standard is considered to prepare the achievement test.

Identifying the important components included in the test:

Based on the objectives of teaching English at the secondary schools, syllabus and text books prescribed for the same in Andhra Pradesh the following components were considered to be included in English achievement test.
1. Vocabulary

2. Sentence formation

3. Grammar

4. Reading comprehension

5. Written expression

**Vocabulary:**

Vocabulary implies the stock of words used in a language. The basic unit of a language is a sentence but it is also composed of certain words. Language learning necessitates the learning of a large number of words. Learning a language does not mean merely learning the words but substituting those words for the corresponding words in our own language.

**Sentence formation:**

A sentence is made up of group of words which gives complete sense or meaning. The basic urge of every human being is the expression of ideas what ever is learnt that is confirmed when a person is able to express his/her own ideas or thoughts in a meaning way through the right form of sentences. Pupils can be able to develop this skill through practicing group work, pair work and dialogue practicing.

**Grammar:**

Grammar occupies an important place in the teaching learning process of a language. It is a body of certain rules and regulations of the language. There are two types of grammar formal grammar and functional grammar. Formal grammar is the ability to describe the language where as functional grammar is the ability to use the language. The functional grammar is better because it helps the learners in the achievement of real aims of language learning. So it is recommended in the school.
Reading comprehension:

The main aim of reading comprehension in the classroom is to make the students independent and efficient readers. Reading is an important mode of comprehension and gaining knowledge. Reading helps pupils to improve and extend their knowledge and command over English and to enable them use English language without fear and develop in them the habit of thinking in English.

Written expression:

Writing is the communication of ideas to others through the written media. Writing is an expressive skill in the field of language. The correct massages, feelings, thoughts and expenses can only be communicated in written form. English hand writing has a prominent role to play in the school curriculum. Beautiful hand writing not only attracts the reader but also experiences pleasure in the process of writing.

Selection of Items for each component:-

Equal weightage was given for each component and a good number of items were collected from the text books, consulted experienced English teachers who are handling the classes VIII, IX and X and from other sources of research studies. X class English syllabus is mainly considered to prepare the test. To test vocabulary 20 objective type of questions were prepared, to test formation of sentences 20 objective types of questions were included, to test reading comprehension, four comprehension passages were included and to test written expression, letter writing and paragraph writing were included based on the class X standard in English. Selective items were organized logically in the preliminary form of the test. They were presented before a panel of experts which consisted of English teachers, educationists, researchers and language experts. The panel was asked to scrutinize the items
and comment critically on the adequacy and accuracy of the items. After taking into consideration the suggestions given by panel of experts the items were modified and refined accordingly.

3.6.2 Pilot study:

A representative sample of 370 students was selected for conducting the pilot study of the test. The students were asked to answer all the items without imposing any time limit to complete the test.

3.6.3 Item Analysis:

An analysis of the response to the individual items of a test proves the level of understanding among students. Secondly it helps to find out test items included average level, difficult level and easy level questions or not. Thirdly it helps to find out whether items are at easy level or difficult level.

This information will be helpful to the teacher if many students failed in answering them they need remedial practice. Teacher also can prepare the test items relevantly.

Item difficulty is determined by observing what percentage of the students answered the item correctly. The more difficult the item is the fewer will be the students who select the correct option.

Discriminating power tells how well the item performs in separating the better students from the poorer students. If the upper third of the students gets the items correct and lower two-third generally gets the item wrong. Then it is a good discriminator between these two groups. Very difficult items should discriminate between the very good students and all of the others; relatively easy items should discriminate between the majority of the students in the class and the few poor ones.
In the present study, the answer scripts of pilot sample (370 students) were scored according to the scoring key prepared in the test construction. Based on the total score obtained by each student the answer scripts were arranged in ascending order 27% of the top group (scripts) and 27% of the bottom group (scripts) were selected and remaining scripts were discarded.

Examining each item in the low group as well as high group the marks obtained by each student for each question item were posted. Thus the score obtained by the high group and low group scores indicated the discrimination power of the item. The discrimination power and difficulty value of each item was calculated. Items possessing reasonable difficulty value and good discrimination power were retained for the final form of the test, on these criteria 82 items were selected for the final test.

Table. 3.1: Item Analysis of Achievement test items and discrimination power

<table>
<thead>
<tr>
<th>Item No.</th>
<th>No.of correct responses in High group</th>
<th>No.of correct responses in Low group</th>
<th>Discrimination power</th>
<th>Remarks</th>
<th>Item No.</th>
<th>No.of correct responses in High group</th>
<th>No.of correct responses in Low group</th>
<th>Discrimination power</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>80</td>
<td>30</td>
<td>.50</td>
<td>Accepted</td>
<td>19</td>
<td>70</td>
<td>65</td>
<td>.15</td>
<td>Detained</td>
</tr>
<tr>
<td>2</td>
<td>60</td>
<td>45</td>
<td>.15</td>
<td>Detained</td>
<td>20</td>
<td>35</td>
<td>20</td>
<td>.15</td>
<td>Detained</td>
</tr>
<tr>
<td>3</td>
<td>75</td>
<td>40</td>
<td>.35</td>
<td>Accepted</td>
<td>21</td>
<td>75</td>
<td>30</td>
<td>.45</td>
<td>Accepted</td>
</tr>
<tr>
<td>4</td>
<td>80</td>
<td>35</td>
<td>.45</td>
<td>Accepted</td>
<td>22</td>
<td>75</td>
<td>35</td>
<td>.35</td>
<td>Accepted</td>
</tr>
<tr>
<td>5</td>
<td>40</td>
<td>26</td>
<td>.14</td>
<td>Detained</td>
<td>23</td>
<td>60</td>
<td>30</td>
<td>.30</td>
<td>Accepted</td>
</tr>
<tr>
<td>6</td>
<td>70</td>
<td>52</td>
<td>.18</td>
<td>Detained</td>
<td>24</td>
<td>60</td>
<td>45</td>
<td>.15</td>
<td>Detained</td>
</tr>
<tr>
<td>7</td>
<td>65</td>
<td>35</td>
<td>.30</td>
<td>Accepted</td>
<td>25</td>
<td>45</td>
<td>30</td>
<td>.15</td>
<td>Detained</td>
</tr>
<tr>
<td>8</td>
<td>70</td>
<td>35</td>
<td>.35</td>
<td>Accepted</td>
<td>26</td>
<td>65</td>
<td>25</td>
<td>.25</td>
<td>Accepted</td>
</tr>
<tr>
<td>9</td>
<td>70</td>
<td>30</td>
<td>.40</td>
<td>Accepted</td>
<td>27</td>
<td>70</td>
<td>25</td>
<td>.45</td>
<td>Accepted</td>
</tr>
<tr>
<td>10</td>
<td>44</td>
<td>32</td>
<td>.12</td>
<td>Detained</td>
<td>28</td>
<td>60</td>
<td>40</td>
<td>.20</td>
<td>Detained</td>
</tr>
<tr>
<td>11</td>
<td>75</td>
<td>55</td>
<td>.20</td>
<td>Detained</td>
<td>29</td>
<td>65</td>
<td>25</td>
<td>.40</td>
<td>Accepted</td>
</tr>
<tr>
<td>12</td>
<td>75</td>
<td>30</td>
<td>.45</td>
<td>Accepted</td>
<td>30</td>
<td>70</td>
<td>52</td>
<td>.18</td>
<td>Detained</td>
</tr>
<tr>
<td>13</td>
<td>35</td>
<td>20</td>
<td>.15</td>
<td>Detained</td>
<td>31</td>
<td>65</td>
<td>30</td>
<td>.35</td>
<td>Accepted</td>
</tr>
<tr>
<td>14</td>
<td>70</td>
<td>55</td>
<td>.15</td>
<td>Detained</td>
<td>32</td>
<td>70</td>
<td>54</td>
<td>.16</td>
<td>Detained</td>
</tr>
<tr>
<td>15</td>
<td>70</td>
<td>25</td>
<td>.45</td>
<td>Accepted</td>
<td>33</td>
<td>60</td>
<td>30</td>
<td>.30</td>
<td>Accepted</td>
</tr>
<tr>
<td>16</td>
<td>80</td>
<td>60</td>
<td>.20</td>
<td>Detained</td>
<td>34</td>
<td>60</td>
<td>48</td>
<td>.14</td>
<td>Detained</td>
</tr>
</tbody>
</table>

78
<table>
<thead>
<tr>
<th>Item No.</th>
<th>No. of correct responses in High group</th>
<th>Low group</th>
<th>Discrimination power</th>
<th>Remarks</th>
<th>Item No.</th>
<th>No. of correct responses in High group</th>
<th>Low group</th>
<th>Discrimination power</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>65</td>
<td>25</td>
<td>.40</td>
<td>Accepted</td>
<td>35</td>
<td>50</td>
<td>20</td>
<td>.30</td>
<td>Accepted</td>
</tr>
<tr>
<td>18</td>
<td>65</td>
<td>25</td>
<td>.40</td>
<td>Accepted</td>
<td>36</td>
<td>48</td>
<td>29</td>
<td>.19</td>
<td>Detained</td>
</tr>
<tr>
<td>37</td>
<td>70</td>
<td>30</td>
<td>.40</td>
<td>Accepted</td>
<td>78</td>
<td>50</td>
<td>20</td>
<td>.30</td>
<td>Accepted</td>
</tr>
<tr>
<td>38</td>
<td>62</td>
<td>43</td>
<td>.19</td>
<td>Detained</td>
<td>79</td>
<td>55</td>
<td>40</td>
<td>.15</td>
<td>Detained</td>
</tr>
<tr>
<td>39</td>
<td>65</td>
<td>30</td>
<td>.35</td>
<td>Accepted</td>
<td>80</td>
<td>63</td>
<td>43</td>
<td>.23</td>
<td>Detained</td>
</tr>
<tr>
<td>40</td>
<td>75</td>
<td>30</td>
<td>.45</td>
<td>Accepted</td>
<td>81</td>
<td>74</td>
<td>55</td>
<td>.19</td>
<td>Detained</td>
</tr>
<tr>
<td>41</td>
<td>63</td>
<td>48</td>
<td>.11</td>
<td>Detained</td>
<td>82</td>
<td>60</td>
<td>48</td>
<td>.12</td>
<td>Detained</td>
</tr>
<tr>
<td>42</td>
<td>44</td>
<td>23</td>
<td>.19</td>
<td>Detained</td>
<td>83</td>
<td>60</td>
<td>32</td>
<td>.28</td>
<td>Accepted</td>
</tr>
<tr>
<td>43</td>
<td>72</td>
<td>55</td>
<td>.17</td>
<td>Detained</td>
<td>84</td>
<td>60</td>
<td>44</td>
<td>.16</td>
<td>Detained</td>
</tr>
<tr>
<td>44</td>
<td>60</td>
<td>30</td>
<td>.30</td>
<td>Accepted</td>
<td>85</td>
<td>59</td>
<td>47</td>
<td>.12</td>
<td>Detained</td>
</tr>
<tr>
<td>45</td>
<td>65</td>
<td>25</td>
<td>.40</td>
<td>Accepted</td>
<td>86</td>
<td>70</td>
<td>48</td>
<td>.24</td>
<td>Detained</td>
</tr>
<tr>
<td>46</td>
<td>65</td>
<td>20</td>
<td>.45</td>
<td>Accepted</td>
<td>87</td>
<td>68</td>
<td>49</td>
<td>.19</td>
<td>Detained</td>
</tr>
<tr>
<td>47</td>
<td>63</td>
<td>44</td>
<td>.19</td>
<td>Detained</td>
<td>88</td>
<td>37</td>
<td>20</td>
<td>.17</td>
<td>Detained</td>
</tr>
<tr>
<td>48</td>
<td>66</td>
<td>48</td>
<td>.14</td>
<td>Detained</td>
<td>89</td>
<td>49</td>
<td>21</td>
<td>.28</td>
<td>Accepted</td>
</tr>
<tr>
<td>49</td>
<td>65</td>
<td>25</td>
<td>.40</td>
<td>Accepted</td>
<td>90</td>
<td>70</td>
<td>45</td>
<td>.35</td>
<td>Accepted</td>
</tr>
<tr>
<td>50</td>
<td>55</td>
<td>25</td>
<td>.30</td>
<td>Accepted</td>
<td>91</td>
<td>62</td>
<td>44</td>
<td>.18</td>
<td>Detained</td>
</tr>
<tr>
<td>51</td>
<td>44</td>
<td>32</td>
<td>.12</td>
<td>Detained</td>
<td>92</td>
<td>59</td>
<td>30</td>
<td>.29</td>
<td>Accepted</td>
</tr>
<tr>
<td>52</td>
<td>50</td>
<td>25</td>
<td>.25</td>
<td>Accepted</td>
<td>93</td>
<td>66</td>
<td>45</td>
<td>.19</td>
<td>Detained</td>
</tr>
<tr>
<td>53</td>
<td>55</td>
<td>20</td>
<td>.35</td>
<td>Accepted</td>
<td>94</td>
<td>75</td>
<td>60</td>
<td>.15</td>
<td>Detained</td>
</tr>
<tr>
<td>54</td>
<td>67</td>
<td>48</td>
<td>.19</td>
<td>Detained</td>
<td>95</td>
<td>65</td>
<td>48</td>
<td>.13</td>
<td>Detained</td>
</tr>
<tr>
<td>55</td>
<td>45</td>
<td>37</td>
<td>.18</td>
<td>Detained</td>
<td>96</td>
<td>74</td>
<td>40</td>
<td>.34</td>
<td>Accepted</td>
</tr>
<tr>
<td>56</td>
<td>70</td>
<td>25</td>
<td>.45</td>
<td>Accepted</td>
<td>97</td>
<td>46</td>
<td>33</td>
<td>.13</td>
<td>Detained</td>
</tr>
<tr>
<td>57</td>
<td>70</td>
<td>30</td>
<td>.40</td>
<td>Accepted</td>
<td>98</td>
<td>70</td>
<td>40</td>
<td>.30</td>
<td>Accepted</td>
</tr>
<tr>
<td>58</td>
<td>44</td>
<td>28</td>
<td>.16</td>
<td>Detained</td>
<td>99</td>
<td>44</td>
<td>31</td>
<td>.12</td>
<td>Detained</td>
</tr>
<tr>
<td>59</td>
<td>60</td>
<td>25</td>
<td>.35</td>
<td>Accepted</td>
<td>100</td>
<td>60</td>
<td>42</td>
<td>.18</td>
<td>Detained</td>
</tr>
<tr>
<td>60</td>
<td>65</td>
<td>30</td>
<td>.35</td>
<td>Accepted</td>
<td>101</td>
<td>50</td>
<td>25</td>
<td>.25</td>
<td>Accepted</td>
</tr>
<tr>
<td>61</td>
<td>66</td>
<td>47</td>
<td>.19</td>
<td>Detained</td>
<td>102</td>
<td>60</td>
<td>35</td>
<td>.25</td>
<td>Accepted</td>
</tr>
<tr>
<td>62</td>
<td>60</td>
<td>25</td>
<td>.35</td>
<td>Accepted</td>
<td>103</td>
<td>44</td>
<td>32</td>
<td>.12</td>
<td>Detained</td>
</tr>
<tr>
<td>63</td>
<td>60</td>
<td>20</td>
<td>.40</td>
<td>Accepted</td>
<td>104</td>
<td>46</td>
<td>28</td>
<td>.18</td>
<td>Detained</td>
</tr>
<tr>
<td>64</td>
<td>65</td>
<td>20</td>
<td>.45</td>
<td>Accepted</td>
<td>105</td>
<td>70</td>
<td>45</td>
<td>.25</td>
<td>Accepted</td>
</tr>
<tr>
<td>65</td>
<td>75</td>
<td>60</td>
<td>.15</td>
<td>Detained</td>
<td>108</td>
<td>75</td>
<td>35</td>
<td>.40</td>
<td>Accepted</td>
</tr>
<tr>
<td>66</td>
<td>65</td>
<td>50</td>
<td>.15</td>
<td>Detained</td>
<td>107</td>
<td>60</td>
<td>30</td>
<td>.30</td>
<td>Accepted</td>
</tr>
<tr>
<td>67</td>
<td>55</td>
<td>20</td>
<td>.35</td>
<td>Accepted</td>
<td>108</td>
<td>40</td>
<td>30</td>
<td>.10</td>
<td>Detained</td>
</tr>
<tr>
<td>68</td>
<td>55</td>
<td>25</td>
<td>.30</td>
<td>Accepted</td>
<td>109</td>
<td>50</td>
<td>35</td>
<td>.15</td>
<td>Detained</td>
</tr>
<tr>
<td>Item No.</td>
<td>No. of correct responses in High group</td>
<td>Discrimination power</td>
<td>Remarks</td>
<td>Item No.</td>
<td>No. of correct responses in High group</td>
<td>Discrimination power</td>
<td>Remarks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------------------</td>
<td>----------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------------------------------------</td>
<td>----------------------</td>
<td>---------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>68</td>
<td>45</td>
<td>.15</td>
<td>Detained</td>
<td>110</td>
<td>70</td>
<td>.25</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>65</td>
<td>.35</td>
<td>Accepted</td>
<td>111</td>
<td>60</td>
<td>.25</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>71</td>
<td>59</td>
<td>.19</td>
<td>Detained</td>
<td>112</td>
<td>65</td>
<td>.19</td>
<td>Detained</td>
<td></td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>70</td>
<td>.19</td>
<td>Detained</td>
<td>113</td>
<td>70</td>
<td>.35</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>73</td>
<td>55</td>
<td>.30</td>
<td>Accepted</td>
<td>114</td>
<td>60</td>
<td>.18</td>
<td>Detained</td>
<td></td>
<td></td>
</tr>
<tr>
<td>74</td>
<td>40</td>
<td>.10</td>
<td>Detained</td>
<td>115</td>
<td>65</td>
<td>.35</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>50</td>
<td>.25</td>
<td>Accepted</td>
<td>116</td>
<td>40</td>
<td>.16</td>
<td>Detained</td>
<td></td>
<td></td>
</tr>
<tr>
<td>76</td>
<td>65</td>
<td>.15</td>
<td>Detained</td>
<td>117</td>
<td>65</td>
<td>.25</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>77</td>
<td>55</td>
<td>.35</td>
<td>Accepted</td>
<td>118</td>
<td>75</td>
<td>.25</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>78</td>
<td>60</td>
<td>.30</td>
<td>Accepted</td>
<td>119</td>
<td>60</td>
<td>.35</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>79</td>
<td>70</td>
<td>.12</td>
<td>Detained</td>
<td>120</td>
<td>70</td>
<td>.25</td>
<td>Detained</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>40</td>
<td>.15</td>
<td>Detained</td>
<td>121</td>
<td>60</td>
<td>.20</td>
<td>Detained</td>
<td></td>
<td></td>
</tr>
<tr>
<td>81</td>
<td>75</td>
<td>.40</td>
<td>Accepted</td>
<td>122</td>
<td>75</td>
<td>.25</td>
<td>Detained</td>
<td></td>
<td></td>
</tr>
<tr>
<td>82</td>
<td>60</td>
<td>.15</td>
<td>Detained</td>
<td>123</td>
<td>60</td>
<td>.35</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>83</td>
<td>70</td>
<td>.40</td>
<td>Accepted</td>
<td>124</td>
<td>65</td>
<td>.20</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>84</td>
<td>65</td>
<td>.15</td>
<td>Detained</td>
<td>125</td>
<td>75</td>
<td>.35</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>85</td>
<td>50</td>
<td>.30</td>
<td>Detained</td>
<td>126</td>
<td>65</td>
<td>.15</td>
<td>Detained</td>
<td></td>
<td></td>
</tr>
<tr>
<td>86</td>
<td>75</td>
<td>.40</td>
<td>Accepted</td>
<td>127</td>
<td>60</td>
<td>.35</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>87</td>
<td>60</td>
<td>.30</td>
<td>Detained</td>
<td>128</td>
<td>65</td>
<td>.25</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>88</td>
<td>55</td>
<td>.25</td>
<td>Detained</td>
<td>129</td>
<td>60</td>
<td>.35</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>89</td>
<td>45</td>
<td>.15</td>
<td>Detained</td>
<td>130</td>
<td>70</td>
<td>.20</td>
<td>Detained</td>
<td></td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>60</td>
<td>.35</td>
<td>Accepted</td>
<td>131</td>
<td>75</td>
<td>.25</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>91</td>
<td>75</td>
<td>.35</td>
<td>Accepted</td>
<td>132</td>
<td>45</td>
<td>.15</td>
<td>Detained</td>
<td></td>
<td></td>
</tr>
<tr>
<td>92</td>
<td>60</td>
<td>.25</td>
<td>Accepted</td>
<td>133</td>
<td>45</td>
<td>.20</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>93</td>
<td>70</td>
<td>.25</td>
<td>Accepted</td>
<td>134</td>
<td>60</td>
<td>.35</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>94</td>
<td>60</td>
<td>.30</td>
<td>Accepted</td>
<td>135</td>
<td>70</td>
<td>.30</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>45</td>
<td>.20</td>
<td>Detained</td>
<td>136</td>
<td>40</td>
<td>.15</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>96</td>
<td>65</td>
<td>.15</td>
<td>Detained</td>
<td>137</td>
<td>60</td>
<td>.20</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>97</td>
<td>75</td>
<td>.25</td>
<td>Accepted</td>
<td>138</td>
<td>60</td>
<td>.30</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>98</td>
<td>60</td>
<td>.15</td>
<td>Detained</td>
<td>139</td>
<td>60</td>
<td>.18</td>
<td>Detained</td>
<td></td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>70</td>
<td>.25</td>
<td>Accepted</td>
<td>140</td>
<td>70</td>
<td>.15</td>
<td>Detained</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>55</td>
<td>.25</td>
<td>Accepted</td>
<td>141</td>
<td>60</td>
<td>.25</td>
<td>Accepted</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

80
3.6.4 Details of the final form of the English achievement test:

The final form of the English achievement test has major five components consisting 82 items and the maximum marks are 100.

The five components are:

1. Vocabulary – 20 items for 20 marks.

2. Grammar – 20 items for 20 marks

3. Sentence formation – 20 items for 20 marks

4. Reading comprehension – 20 items for 20 marks

5. Written expression 2 items for 20 marks.

Details of the English achievement test items based on components and weightage of marks.

Table. 3.2: Details of the English achievement test items based on components

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name of the component</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vocabulary</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>Sentence formula</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>Grammar</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>Reading comprehension</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>Written expression</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Shows the details of the English achievement test items based on the objectives language.
Table 3.3: Details of the English achievement test items based on the objectives of the language.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Objectives</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Knowledge</td>
<td>20</td>
</tr>
<tr>
<td>2.</td>
<td>Understanding</td>
<td>20</td>
</tr>
<tr>
<td>3.</td>
<td>Application</td>
<td>20</td>
</tr>
<tr>
<td>4.</td>
<td>Skills</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Shows the details of the English achievement test items based on the type of questions.

Table: 3.4. Details of the achievement test based on the type of questions

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Type of questions</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Objective Type</td>
<td>60</td>
</tr>
<tr>
<td>2.</td>
<td>Short Answer</td>
<td>20</td>
</tr>
<tr>
<td>3.</td>
<td>Essay</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Shows the details of the English achievement test items based on the level of difficulty.

Table. 3.5: Details of the achievement test based on the level of difficulty.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Level of difficulty</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Easy</td>
<td>25</td>
</tr>
<tr>
<td>2.</td>
<td>Average</td>
<td>50</td>
</tr>
<tr>
<td>3.</td>
<td>Difficult</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

82
Scoring key for the test:

The scoring key was prepared for valuing the test. Marks were allotted based on the key points of the objective questions and short answers. For essay type main points were noted to cover the allotted marks.

3.6.5 Standardization of the English achievement test:

(a) Validity of the Test:

An achievement test is a measuring instrument. It really measures the ability level or achievement level of the students. Validity and reliability judge the efficiency of the test. The validity of a test is concerned with the question of what is measured. “The validity of a test may be defined as the accuracy with which it measures that it is intended to measure or as the degree to which it approaches infallibility in measuring what it purports to measure”. (Lindquist, 1942).

Validity is ‘the extent to which a test or other measuring instrument fulfils the purpose for which it is used; usually investigated by an analysis of test content or by a study of relationships between test scores and other variables’. (Good C.V., 1973).

Validity ‘refers to the extent to which a given test is an appropriate measure of what it was intended to measure’. (R.P. Taneja, 1991).

(1) Content Validity

The final form of the test was presented to panel of experts consisting of experienced teacher’s educationist’s researches and language experts for scrutiny. They were requested to examine the coverage of content in the test items keeping in view the objectives of teaching English in secondary schools. They felt satisfactory regarding the coverage of important
components in the test. The experts also convinced the weightage given for each component as shown in the final form of the test. They were also asked to examine the clarity of language used in the instruction as well as in the question items of the test.

(2) Construct Validity:

Construct validity of test measures particular characteristics of the individual test. It is valid from the construct point of view, while constructing the test the scientific procedure of constructing the achievement test was meticulously followed in each and every step. All the tables showing the final form of the test reveal the appropriate weightages for various aspects of the test viz. components, content type of questions and difficulty level of questions. The experts examined the percentages given for each sub item and they have given their consent over the distribution of items in the test. The item analysis procedure followed while selecting the test items and the tables of components in the final form will reveal that the test contains construct validity.

(b) Reliability of the test:

Test – retest method was adopted to determine the reliability of the test. The final form of the test was administered to a representative sample of students at the first instance and the same test was administered to the same group of students after a gap of weeks. The scores obtained in the first trial were compared with the scores obtained in the second trial. The high correlation revealed that the test is reliable.

With the designing and standardization of the English achievement test the objective “To develop English language achievement test for measuring the achievement level in English language among secondary school learners” is realized.

This achievement test was conducted for total sample 600.
3.7 Construction of the study Habits Inventory:

The child beings to form habits very early and his tendency gents firmly conditioned in the early years of childhood. Habit implies a fixed routine response to a specific situation. We find a number of activities performed by other persons that seem to be quite easy and mechanical though initially they are quite difficult and tiresome. Our walking, talking, dressing, writing, driving are all such acts. All these learned activities are commonly known by the term “habit”.

Habit, according to Hull, is the combination of Stimulus – Response that is reinforced by some reward or punishment. Habit is semi-mechanical an automatic. According to Klapper “personality is clothed in habits and habits are the very garment of the soul”. Psychologically it refers to a product of learning rather than a reflex and instinct, which connote unlearned behavioural tendencies. It is associated with learning. It is also a concept and not a thing.

Besides the technical use of the term habit, it refers to an individual’s tendency to act in customary or automatic ways acquired by practice or experience. It is closely connected with learning. Once a habit is well formed, it requires the same power as that of a motive. It gives sufficient feed back to the individual and thus, the cycle of activity goes on. Habits are formed, learned and developed in a planned way. Habits are, no doubt important and play crucial role in shaping the personality of the individual, but they should not be allowed to dominate, the individual becomes their victim. The habits are caught rather than taught, and a congenial and healthy attitude and environment are a prerequisite for its cultivation. Habits are influenced to a
large extent by environment. They are found to function in specific situation. In general, habits are two groups' (1) good habits like punctuality, speaking truth, proper work habit etc. are useful to the individual welfare and (2) bad habits like telling lies, smoking, gambling etc., are harmful to both individual and the society.

In the field of education study habits have a strong impact. Student who is habitual of concentration on his studies for hours in school as well as at home is not easy overcome by fatigue. Habits of thinking regularity, proper reasoning, punctuality etc., help the pupils in their proper adjustment and in learning and in achieving all the essential knowledge and skills in a short time with great facility. The habit of reading journals, news papers, listening to radio, making analysis and also reading of classics, fictions etc. must be cultivated in the pupil at school and carried through in the college and later in life.

Study habits mean the habits that an individual might have formed with respect to his learning activities. In the process of learning, habitual ways of exercising and practicing their abilities for learning are considered as study habits of learners. The pattern of behaviour adopted by students in the pursuit of their studies is considered under the caption of their study habits. Learners learning character is characterized by his study habits. Study habits serve as the vehicle of learning. Generally students take over the study from their parents, brothers, sisters and others like friends, neighbours, etc. Poor study habits create anxiety in the students. If he studies well, habits of good study make him to give a good performance. Classroom teachers should teach students good study habits and self-management skills together with appropriate self-attribution strategies. His success depends on hard work, proper study habits and utility of the effective time, etc.
Study habits are defined as "the complex of reading behaviour of a person, resulting from the varying degrees of interaction, of a number of variable factors, when he seeks graphic records for acquiring information or knowledge depends upon the methods of acquiring study habits.

The first study habits inventory (SHI) was constructed by Wrenn in 1933 with a view to survey this feature among students. Locke constructed a self rating scale for measuring study habits. Patel (1975) also constructed and standardized the study habits inventory with 45 statements, and these statements are classified into seven areas.

1. Their home environment and planning of work.
2. Their planning of subject.
3. Their habit of concentration.
4. Their preparation for examination.
5. Their reading and note taking habit.
6. Their school environment and
7. Their general habits and attitudes.

Adoption of the Instrument

Dr. Nagraj (2001) was constructed and standardized the study habits inventory with 98 items were prepared based on 9 areas. Each item of the inventory was arranged on a unipolar 5 – point scale with responses – always, often, sometimes seldom and never. At the end of each item 5 brackets were given and the pupils were asked to put a tick (✓) in the appropriate bracket. Which they felt was very near to their study habit.
This inventory was set with nine areas as under:

1. Home environment and planning of work.
2. Reading and note taking.
3. Planning of Subject.
4. Habits of Concentration.
5. Preparation for Examination.
6. Tution and Social environment.
8. General Habits and attitudes.

This standardized study habits inventory was adopted as a tool to assess the study habits of the pupils, in the present study.

Among 98 items in the study habits inventory, items 1 to 11 come under “Home environment and planning of Work” Item 12 to 29 are come under “reading and note taking”, Item 30 to 38 are come under “Planning of Subject”, Item 39 to 51 are come under “Habits of Concentration”, Item 52 to 55 are come under “Preparation for Examinations”, Item 56 to 62 are come under “Tution Social Environment”, item 63 to 68 are come under “Audio-Visual Programmers”, item 69 to 83 are come under “General Habits and Attitudes” and the items 84 to 98 are come under “school Environment”.

Among these 98 items there are 42 positive items. The item number – 1, 2, 4, 5, 6, 9, 11, 12, 15, 17, 19, 22, 24, 28, 29, 30, 32, 33, 37, 39, 43, 45, 47, 50, 58, 60, 63, 679, 71, 77, 80, 81, 82, 84, 87, 89, 94, 96, 97 and 98 are positive. The remaining items (56 items) are negative.
Based on this answers were scored according to the weightage given by author. This questionnaire was given to the total sample to find out the relationship between study habits of students and achievement of students in English.

(Questionnaire of study habits in Telugu and English version shown in Appendix-II)

3.8 High Schools Personality Questionnaire (HSPQ):

In the present study investigator searched for the theories of personality and the means of measuring it which account for the totality of behaviour. Cattle’s theory of all the numerous theories is the only theory based on the principle of total behavior of the individual.

The nature of Personality:

There are so many definitions about personality some define personality as “ones social voice” others define it as “The sum total of innate dispositions, impulses, appetites, instincts, tendencies and habits. Another type of definition says that “Personality is more than the sum of its parts and that more than its pattern of organization” Some people define personality as “An individual’s characteristic pattern of adjustment”.

“Personality is a dynamic organization within the individual of those psycho-physical systems that determine his unique adjustment to his environment” (Allport, 1949). According to Cattell (1950) “personality is that which permits a prediction of what a person will do in a given situation”.

By looking through one’s physique or sociability, one can not pass judgment over one’s personality. It is possible when one goes carefully in all the aspects – biologically as well as socially, one can make an idea about his personality. Sometimes some researchers and even psychologists fall easily
into the mistake of settling on a single test dealing with any one dimension of personality (e.g.) extroversion, self realization etc. and from that they try to predict all kinds of behaviour.

No two individuals not even the identical twins behave in precisely the same way over any period of time. Every one of us has specific characteristics for making adjustments. Personality includes every thing about a person. It is all that a person has about him. It includes all the behaviour patterns i.e., cognitive and affective and covers not only the conscious activities but goes deeper to semi-conscious and conscious also.

Personality is not static. It is dynamic and even in process of change and modification. As we have said earlier that personality is all that a person has about him. It gives him all that is needed for his unique adjustment in his environment. One has to struggle with the environmental as well as the inner faces throughout the span of his life. As a result one has to bring modification and change in one's personality patterns and it makes the nature of personality dynamic instead of static one learning and acquisition of experiences contribute towards growth and development of personality. Every personality is the end product of this process of learning and acquisition.

Selection of the tool:

The personality of the pupils was assessed in the study using cattell's Junior- Senior high school personality Questionnaire (HSPQ) Form –A. It is applicable to the age group of pupils 12 to 18 years. It is a culture free test. The HSPQ handles the multiplicity of predictions from one test, but not from one score. It helps to obtain scores on 14 dimensions of personality. They represent basic concepts, which are understood by psychology, so that insightful attitudes and understandings of the individuals and his development as well as statistical predictions are possible through this test. The above point weighted in favour of selecting the HSPQ for assuming the personality traits of the pupils. Cattell's 14 personality factors are:
Factor A – Reserved Vs outgoing

Factor B – Less intelligent Vs more Intelligent

Factor C – Emotionally less stable Vs emotionally stable

Factor D – Phlegmatic Vs excitable

Factor E – Obedient Vs Assertive

Factor F – sober Vs Happy goes lucky

Factor G – Moral Standards Vs Super ego strength

Factor H – Shy Vs Venture some

Factor I – Tough minded Vs Tense minded

Factor J – Vigorous Vs Doubting

Factor K – Placid Vs Apprehensive

Factor Q2 – Group dependent Vs self sufficient

Factor Q3 – Undisciplined Vs Controlled

Factor Q4 – Relaxed Vs Tense

One of the Unique features of the HSPQ and other personality scales developed by Cattell is that each of the items in any factor is selected on the basis of their own correlation with the pure factors (Cattell, 1969). In other words the HSPQ has factorial Validity. Further applied research carried out over the years with the factors have produced constant and substantial correlation of criteria in educational clinical occupation and other areas establishing into criterion Validity (Chattell, 1969).

To find out the relationship between personality factors and achievement, investigator decided to use the HSPQ, the questionnaire was translated in to Telugu the regional language of the subjects on whom it had
to be used. Experienced scholars who were well versed with psychological testing checked the translation. Terms which were ambiguous were discussed and resolved, The Telugu version thus prepared was administered for total sample 100 pupils of X class. They were asked to answer the items also check those words which they could not understand such of those terms that the pupils marked were explained or substituted with simple words.

Adoption of the Instrument (HSPQ):

Junior High School Personality Questionnaire (HSPQ) Form – A prepared and standardized by Cattell (1950) was adopted for the present study.

Telugu and English version of HSPQ Form – A was used for the present investigation.

Scoring procedure for the HSPQ

In the HSPQ there are totally 142 questions three alternative answers are given to each question. The pupils are motivated to give only answer for each question preliminary inspection was made to know whether the pupils are answering properly are not then the answers were scored according to weightage given by the author. The scoring was done for each pupil and for each factor.

Validity and Reliability of HSPQ:

For calculating validity and reliability the procedure suggested by Garret (1973) was followed. Reliability of the two sub tests of each factor (based on raw scores) is obtained by split half techniques and validity which is the square root of reliability are presented in the tables. The split half reliabilities were calculated on a sample. (HSPQ Questionnaire was shown in Appendix-3).
3.9 Construction of personal data sheet for the students:

A questionnaire was developed to get information from the student related to the independent variables included in the investigation. The personal data sheet contains the information regarding their identification of data, which includes name, sex, age, class, school, management of the school, type of the school. Information regarding their family background – social status of the family, educational level of the parents, occupation of the parents, income of the family, size of the family and home reading facilities etc. This data was collected from total sample (final form of personal data sheet for the students is shown in Appendix-4).

3.10 Construction of Questionnaire for the Heads of the Institutions:

A questionnaire was designed for the heads of the institutions to get the information regarding the independent variables included in the investigation.

To collect the information related to the institutions items included such as name of the school, location, management, type of school, medium of instruction etc. were obtained.

The details regarding (a) physical facilities in the school such as buildings, class rooms, furniture, library, labs etc. (b) the strength of the school (number of teachers and students) (c) availability of instructional facilities in the school (d) library facilities available in the school and (f) co-curricular activities conducted in the school which includes games, cultural activities and literary clubs and social activities were also included. (Final form of the questionnaire for heads of institutions was shown in Appendix-5).

3.11 Construction of Questionnaire for secondary school teachers of English:

A questionnaire was developed to get information from the secondary school teachers, teaching English. The items included in the questionnaire meant for teachers who were actually teaching English were collected from
the other researchers related to the variables prepared in the questionnaire. Some of the experts in this area such as educationalists, researchers and experienced teachers were consulted to prepare and finalize the relevant items for the questionnaire. The information was collected from the English teachers working in all the 60 schools.

The questionnaire contains items to collect information regarding experience of teachers, qualifications of teachers, in-service training programmes attended relating to English language teaching and evaluation procedures followed by the teacher. (Final form of the questionnaire for the secondary school teachers of English is shown in Appendix-6).

3.12 Standardization of the Questionnaires

The questionnaires were designed to collect data regarding the variables included in the study. While collecting the items to be included in the questionnaires experienced teachers were consulted, various activities of the schools were observed and research studies in the related area were examined. Adequate number of items were gathered and arranged under meaningful headings. The preliminary forms were presented to a panel of experts for scrutiny regarding the adequacy, accuracy and clarity of the statements. Their suggestions were properly incorporated. The questionnaires were administered to a sample of students, teachers and heads of the institutions. Based on the responses regarding the variables included in the study some modifications were done in the final forms of the questionnaire.

3.13 Analysis of Data:

The statistical techniques used in the analysis of data were:

1. Measure of central tendency: Mean, Median and Mode
2. Measure of Dispersion: Standard deviation and standard error

3. Correlation tables

4. ‘t’ test to measure the significance of difference of means

5. Chi-squares techniques

6. Analysis of multiple regression

3.14 Conclusion:

The third chapter was prepared to present the methodology adopted in the study. The details of tools which were used in the investigation, which enabled the researcher to identify the variables of the study, were explained in detail. The procedure adopted to collect the data was described. The data gathering tools and analysis techniques were also dealt in this chapter.