3.1. Research Methodology:

Research is an endless quest for knowledge and an unending search for truth. It brings to light new knowledge (or) corrects previous errors and misconceptions and adds in an orderly way to the existing body of knowledge. The knowledge obtained by research is scientific and objective and is a matter of rational understanding, common verification and experience.

“Research is considered to be a more formal, systematic and intensive process of carrying on the scientific method of analysis. It involves a more systematic structure of investigation usually resulting in some sort of formal record of procedure and a report of results in conclusion”. - J.W. Best

“Research is an honest, exhaustive, intelligent searching for facts and their meanings (or) implications with reference to given problem. It is the process of arriving at dependable solutions to problem through the planned and systematic collection, analysis and interpretation of data. The best search is that which is reliable, verifiable and exhaustive. So that it provides information in which we have confidence”. - P.M. Cook

“The secret of our cultural development had been the research, pushing back the areas of ignorance by discovering new truths, which, in turn lead to better ways of doing things and better products”. - John. W. Best
Research is a systematic investigation resulting in some formal record of procedures and the report of conclusions and results. Research has been defined as a formal, systematic and scientific method of analysis. Research has proved to be an essential and powerful tool in leading the human race towards progress. There would have been very little progress in the world without systematic research.

Research in education is needed to improve educational practices and policies. Many of our educationists are constantly engaged in research to find out effective methods of instruction and satisfactory techniques of improving pupil behaviour. Research in education is also undertaken to develop suitable learning materials, satisfactory techniques of evaluation, more comfortable physical facilities and more efficient systems of educational management and administration.

Traverse considered educational research as that activity which is directed towards development of a science of behaviour in educational situations. He considered that the aim of research is to provide knowledge which will permit the educator to achieve these goals by the most effective methods.

“Mouly” defined educational research as a systematic and scholarly application of scientific method.
Rummel has observed that since no two research undertakings are exactly alike, it is impossible to set forth any right formulation of method (or) procedure. There is a wide variation in the condition and circumstances which determine the objectives and nature of research problems in different fields. The purposes of a study may vary from researcher to researcher in terms where it is to be conducted and the applications that are to be made of it. In addition, great differences in the capacities, and characteristics among the individuals who do research work are a proved fact. Thus all methods defy portrayal in terms of formulae (or) standardization.

Considering the special advantages and depending on the nature of the present study, the survey method has been chosen to study the personality characteristics of high and low academic achievers of Nellore and Prakasam Districts.

The formidable problem that follows the task of defining the research problem is the preparation of the design of the research project, popularly known as the “Research Design”. Decision regarding what, where, when, how much, by what, what concerning an inquiry (or) a research study constitutes a research design.

A research design is the arrangement of condition for collection and analysis of data in a manner that aims to combine relevance to research purpose with economy in procedure (Clair Selltiz and others, 1962). Infact, the research design is the conceptual structure within which research is conducted. It constitutes the blue print for the collection, measurement and analysis of data.
Design is the heart of any research. For the present study, the following aspects have been discussed which are concerned with the design of the study. Research procedure includes the operational definitions of different terms used, the hypotheses that are framed for testing and the rationale of the formulated hypotheses. Selection of the sample includes the sampling techniques used, the reasons for selection of a particular sampling technique and the selection of samples according to variables. Selection of tools includes the suitable tools for collection of data, description of the tools selected, testing their suitability for the present study, and the procedure followed in administering the tools to collect the data required for the study.

A good design is often characterized by objectives like flexible, appropriate, efficient, economical and so on. Generally the design, which minimizes bias and maximizes the reliability of the data collected and analysed is considered a good design. The design, which gives the smallest experimental error, is supposed to be the best design in many investigations. Similarly, a design which yields maximal information and provides an opportunity for considering many different aspects of a problem is considered most appropriate and efficient design in respect of many research problems. Thus, the question of good design is related to the purpose of the research problem and also with the nature of the problem to be studied. A design may be quite suitable in one case, but may be found unsuitable in one respect (or) the other in the context of some other research problem.
These are two basic purposes of design;

1. To provide a conclusive answer to the problem posed by the research
2. To control the potentiality of relevant variables, that is those which may also influence the search outcome, but in which the researcher is not interested at the moment.

For the present study normative survey method has been used. The normative survey of research is usually designed to obtain permanent and precise information concerning the current status of phenomena and, whenever possible, to draw valid general conclusions from the facts discovered. It restricts not only to fact finding but may often result in the formulation of important principles of knowledge and solutions of significant problems concerning local, state, national and international issues.

The descriptive (or) normative survey method of investigation is very common in educational research, which attempts to describe and interpret what exists at present in the form of conditions, practices, processes, trends, effects, attitudes, beliefs etc.

In normative survey method, the ‘normative’ implies the determination of normal (or) typical conditions (or) practices at present time and the ‘survey’ indicates the gathering of the data regarding current conditions. The descriptive (or) normative survey method is an organized attempt to analyse, interpret and report the present status of a social institution, group (or) area. Survey studies collect information on what exists, on what we want, and on how to get there.
3.2. Operational Definitions of Key Terms:

The definitions of some of the important terms used in this study are given below:

1. Personality:

   Etymologically, the word personality is derived from the Greek word “Persona”, which means a mask used by the actors in ancient Greece.

   “The dynamic organisation within the individual of these psycho-physical systems that determine his adjustment to the environment”. - Allport

   “The term personality means the configuration of individual characteristics and ways of behaving which determine an individual unique adjustment to his environment”. - Hillgard

   A psychological term that refers to the predictable and unique indicators of the way, an individual might respond to the environment. A personal reference that usually connects acceptability and likeability. (Madhu Raj.1996; John Bellingham. 2004).

   Personality is that which permits a prediction of what a person will do in a given situation. (Cattell. 1970)

   The total psychological, and social reactions of an individual, the synthesis of his objective, emotional and mental life, his behaviour and his reactions to the environment; The unique (or) individual traits of a person are connoted to a seller degree by “Personality” than by the term “Character”. (Good C.V. 1973)
For individual all the aspects of behaviour, thought and feeling that make
the person unique. For psychologists a major area of theory and research.
(Derek Rowntree. 1981)

Personality trait – A general aspect of a person that may predispose how
he (or) she reacts to particular situations (Madhu Raj 1996; John Bellingham
2004)

It may mean a collection of trait of a person that distinguishes him from
another, or psychologically, a dynamic organization within a person that
determines his adjustment to his environment, or the emotional or temperament
characteristics of a person or the social aspect of a person nature developed in
social interaction. In terms of behaviour it may be defined as the characteristic
pattern of behaviour through which the individual seeks to adjust himself to his
social environment.

**Character:**

A quality of personality evaluated according to the moral demands of a
society. There is much disagreement, and uncertainty over the definition of the
word. Some interpret it as roughly equivalent to personality, others as
synonymous with morality, and still others consider it interchangeable with
ethical and spiritual values. Almost all educators have stressed character as a
major objective of every school system. Some observers say that much of
color character development at certain ages is ‘caught’ and not ‘taught’. Character is
mostly accepted as an inseparable part of personality.
**Academic:**

Pertaining to school subject, or to the fields of liberal arts, or to the sphere of ideas and abstractions.


i) A scholarly teacher and /or researcher in higher education

ii) Relating to the school activities especially at higher educational level;

(Derek Rowntree, 1981)

**Achievement:**

Knowledge attained or skills developed by pupils usually in the school subjects, measured by test scores or by marks assigned by teachers or by both. Achievement test measures the level of performance actually shown in a given subject (or) field.

i) Accomplishment (or) proficiency of performance in a given skill (or) body of knowledge

ii) Progress in school, theoretically different from intelligence but overlaps with it to a great degree. (Good, 1973)

Refers to the performance in school (or) college in a standardized series of educational tests (Taneja, 1991)

The dictionary meaning of “achievement” is ‘to accomplish’, (or) “to bring successful issue”. In the present study the word ‘achievement’ has also been used with the same meaning. i.e something achieved by the students through class room teaching.
**Academic Achievement:**

Knowledge acquired and skills developed in school subjects, generally indicated by marks obtained in tests.

i) Knowledge attained (or) skills developed in the school subjects, usually designed by test scores (or) by marks assigned by teachers (or) by both (Good 1973)

ii) Accomplishment (or) proficiency, performance in a given skill (or) body of knowledge, progress in school theoretically different from intelligence but overlaps with it to a great degree. (Good. 1973)

Measured ability and achievement level of a learner in school subjects (or) particular skills (Derek Rown tree. 1981).

Refers to performance in a school (or) college in a standard series of educational testing (Taneja 1991)

Accomplishment of specified objectives, past performance and what an individual (or) organization has accomplished in the past, in contrast to ability which refers to what an individual (or) organization can do now (in the present) (or) in future. (Madhu Raj 1996 & S.K. Sing 2002).

Successful accomplishment (or) performance in particular subjects, areas (or) courses, usually by reasons of skills, hard work and interest.

Typically summarized in various types of grades, marks, scores (or) descriptive commentary (John Bellingham, 2004).
A measure of knowledge gained in formal education usually indicated by test scores, grade points, averages and degrees. (Madhu Raj, 1996; John Bellingham, 2004).

Academic achievement is of paramount importance, particularly in the present socio-economic and cultural contexts. Obviously, in the school, great emphasis is placed on achievement right from the beginning of formal education. The school performs the function of selection and differentiation among students on the basis of their scholastic and other attainments and opens out avenues for advancement, again primarily in terms of achievement.

Academic achievement is the major concern of educational policy makers of every country. To a great extent, the achievement of the student affects his failure, success and performance. Low achievement in social studies surely influences their social life as good citizens. So, care should be taken to increase that rate of achievement and find out the hindrances that decrease the achievement rate. Academic performance, the major indicator of an individual’s potential, expertise and success, is not an independent phenomenon, rather it is influenced by a number of factors, some of which are personal to the individual while many others are located in the environment in which the learning takes place.
High Academic Achievers:

They are defined as those who achieve success over and above the standard (or) expected level especially at an early age (web star’s Dictionary 2002). The students who have intelligence and high intellectual abilities in their academic syllabus are called high academic achievers, they have skills in vocabulary, skills in numbers, manipulative skill, reasoning and other cognitive abilities, high I.Q level, various interests and also have divergent thinking.

High academic achievers have more positive attitudes, more reading ability, more confident, more concerned with abstract ideas, more flexible, have greater ego-strength and also have better observation.

Low Academic Achievers:

**Good** defines low achievers as those whose academic achievement is significantly below the level expected of them on the basis of their assessed intellectual potential.

The students who have less intelligence and less intellectual abilities in their academic syllabus are called low academic achievers. They have minimum skills in vocabulary, in numbers, manipulative skill, reasoning and other cognitive abilities, less I.Q level and also have convergent thinking.

Low academic achievers have more negative attitude, less reading ability and confidence. Besides they have no keen observation.
3.3. Variables taken for the study:

A variable, as the name implies is something which varies. This is the simplest and broadest way of defining a variable. However, a behaviour scientist attempts to define a variable more precisely and specifically. From his point of view, variables may be defined as those attributes of objects, events, things and beings which can be measured. In other words, variables are the characters of conditions that are manipulated, controlled (or) observed by the experimenter. Intelligence, anxiety, aptitude, income, education, authoritarianism, achievements, etc. are the examples of variables commonly employed in psychology, sociology and education.

Variables are necessary requisites for any worth while research for the purpose of comparison.

Any trait that changes from one case (or) condition to another, more strictly, the representation of the trait, usually in quantitative form, such as a measurement (or) an enumeration. (Good 1973).

Refers to a factor in educational research that influences the observation (or) management of an educational phenomenon (R.P. Taneja, 1991 and group of experts, 2003).
**Independent Variable:**

i) A variable to which values may be assigned at will

ii) The variable on which an estimation (or) prediction is based in a regression problem.

iii) In the plural, often used to refer to variables that are unconnected where presented graphically, the x-axis (or) horizontal axis is conveniently used for the independent variable (Good 1973).

In a statistical study, the variable whose values are deliberately changed (or natural difference observed) in order to see how this influences the values of another variable Derek Rown tree, 1981).

Refers to variable whose changes are considered as not dependent upon transformations in other specific variables (R.P. Taneja, 1991.).

In experimental research, the aspect of the study that the investigator manipulates (or) controls in order to observe the effect on the dependent variable (Madhu Raj 1996).

An independent variable is one that the researcher manipulates; eg, a type of instructional programme (Johan Bellingham, 2004).

**Dependent Variable:**

A dependent variable is one that changes in consequence with changes in the independent variable (John Bellingham 2004).
A variable whose magnitude depends on (or) is a function of, the value of another variable (or other variables); a variable whose value is being estimated (for example by regression techniques) from that of one (or) more independent variables to which it is related; when represented graphically, the y-axis (or) vertical line is conveniently used (or) the dependent variable. (Good, 1973).

In a statistical study, the variables in whose values, we are expecting to see changes as a result of changes, we have made (or) observed in the values of some other variable (Derck Rowntree, 1981)

Refers to a variable that is the presumed effect of a presumed cause of an event (R.P. Taneja, 1991 and A Group of experts, 2003).

A factor is an experimental relationship which has (or) shows variation that is hypothesized to be caused by another independent factor (or) variable (Madhu Raj & S.K. Singh, 2002).

**Demographic:**

i) Statistics showing an area’s population characteristics such as age, race, income and education.

ii) Basic information about an individual including such characteristics as age, place of residence and marital status. (S.K. Singh 2002, & John Bellinghom 2004)
For the present study, the following demographic variables are considered.

1. **Gender:** Boys high school students versus Girls high school students
2. **Locality:** Urban high school students versus rural high school students.
3. **Management:** Government high School students versus private high school students.

The rationale of selection of these variables is discussed here under.

1. **Gender:**

   Now-a-days, girl education gained much importance as many parents and others are encouraging them to pursue higher education. As the psychological conditions, exposure to the society, education and other aspects of Boys and Girls vary differently, there may be a significant difference in the possession of personality characteristics. So, a comparison between boys and girls of high school students will reveal whether any differences exist in the possession of personality characteristics.

2. **Locality of the school:**

   The schools located in an urban area were considered as Urban school and the schools located in rural area were considered as rural schools.

   The rural and urban high school students differ widely in their personality related to their mental abilities, psychological factors like introvert–extrovert. So a comparison between rural and urban high school students well reveal if any difference exists in their personality characteristics.
3. Management of the school:

The schools managed by private organization (or) persons, either partially (or) totally, were included in private schools. The public schools Government recognized and (or) aided schools managed by the private management were included under private schools.

The schools under sole management of Government officials were included under government schools. So the schools managed by Mandal Parishads, Zilla Parishads, Municipalities, Municipal Corporations (or) Government were included in this category.

So, a comparison between these two types of management school students will reveal if any difference exists in their personality characteristics.

The investigator has selected the following psycho-sociological variables for the present study.

A) Dependent variable:

14 personality characteristics as assessed by HSPQ constituted the dependent variable of the present study.

B) Independent variable:

The independent variables studied in this investigation are given below

Academic achievement and the personal and socio–demographic variables included in the present investigation are Gender which is divided into Boys & Girls; Locality which is divided in to Rural & Urban; Type of management which is divided into private and Government.
3.4. Hypothesis:

Two important functions that hypotheses serve in scientific inquiry are the development of theory and the statement of parts of an existing theory in testable form. Snow (1973) describes six levels of theory, with the first level being hypothesis formation. At this initial level, the theory developer has a hunch based on past experience, observations, and/or information gained from others. A hypothesis is formulated in such a way that hunch can be tested. Based upon the findings of the subsequent research, the hypothesis is supported or rejected and more hypotheses are formulated to continue the process of building a cohesive theory.

The research or scientific hypothesis is a formal affirmative statement predicting a single research outcome, a tentative explanation of the relationship between two or more variables. For the hypothesis to be testable, the variables must be operationally defined. That is, the researcher specifies what operations were conducted, or tests used, to measure each variable. Thus the hypothesis focuses the investigation on a definite target and determines what observations, or measures, are to be used.

In the behavioral sciences, the variables may be abstractions that cannot be observed. These variables must be defined operationally by describing some samples of actual behaviour that are concrete enough to be observed directly. The relationship between these observable incidents may be deduced as consistent or inconsistent with the consequences of the hypothesis. Thus, the hypothesis may be judged to be probably true or probably false.
Hypotheses of the Present Study:

Hypotheses are the tentative conclusions intended for verification. For the present study, eleven major hypotheses were formulated.

1. There would be significant difference between high academic achievers and low academic achievers in their personality characteristics.

2. There would be significant difference between high academic achieving boys and low academic achieving boys in their personality characteristics.

3. There would be significant difference between high academic achieving girls and low academic achieving girls in their personality characteristics.

4. There would be significant difference between high academic achievers studying in Govt. high schools and low academic achievers studying in Govt. high schools in their personality characteristics.

5. There would be significant difference between high academic achievers studying in Private high schools and low academic achievers studying in Private high schools in their personality characteristics.

6. There would be significant difference between high academic achievers studying in urban high schools and low academic achievers studying in urban high schools in their personality characteristics.

7. There would be significant difference between high academic achievers studying in rural high schools and low academic achievers studying in rural high schools in their personality characteristics.
8. There would be significant difference between students studying in Government and Private high schools in their personality characteristics.

9. There would be significant difference between boys and girls studying in high schools in their personality characteristics.

10. There would be significant difference between rural and urban high school students in their personality characteristics.

11. There would be significant interaction among gender, locality of the school and management of the school with regard to personality characteristics.

3.5. Selection of Sample:

After finalizing the variables of the present study, consideration was given to whether the entire population is to be made the subject for data collection (or) a particular group is to be selected as a representative of the whole population. The entire population here refers to all the X\textsuperscript{th} class studying students in Prakasam and Nellore districts.

Of the two techniques, the second one, namely, the selection of a group as a representative of the whole population was found to be more convenient and suitable. This technique leads to a considerable saving of time, effort and finance. The number of 10\textsuperscript{th} class students selected is small and so it is possible to make a detailed and intensive study. This generally leads to more accurate and reliable results. As this sampling technique was more advantageous, it was selected for the collection of data.
In any social research, various methods are utilized for selection and drawing of samples. After a detailed study of all these methods and considering the variables selected for the research work, the stratified sampling method was found to be most suitable.

In the stratified sampling method, the entire population will be divided into smaller homogenous groups (or) strata, and then a sample is selected within each group. Every sampling unit in the population is placed in one of the strata prior to the selection of the sample so that the sum of the strata is identical with the population.

Stratified sampling method has certain merits as a technique of sampling. Auckoff has rightly said that stratified sampling enables the researcher to make a composition of properties of the strata very well so as to estimate population characteristics.

In this stratified sampling method, the investigator has greater control over the selection of the sample when compared with random sampling. In random sampling, although every group has a chance of being selected and included in the sample, there is every possibility, and some times it does not happen, that certain important groups are left unrepresented. But in stratified sampling method no important group is likely to be left out.

Stratified sampling method is the ideal one when comparison between different variables has to be made. For example, if comparison has to be made between private and Government school students (or) rural and urban students,
it would be very difficult to select the required number of units through any other method of sampling. If any other method is used, the problem of bias and prejudice creeps in.

Replacement of units is also possible in the stratified sampling method. Normally if a particular unit is not accessible for a study, it is difficult to replace it by another, but in this method it is possible. Stephen states that “Stratification automatically brings about a replacement of persons lost in the sample, by persons of the same stratum, thus partly correcting the bias that would result if there were no replacement of losses”. As the entire population is divided into particular strata, it is easy and convenient to replace an inaccessible case by an accessible one.

In stratified sampling method, much depends on stratification process. The following precautions were taken while stratifying the population. The variables involved in the study were taken note of; care was taken to see that each stratum in the universe was large enough in size so that selection of items could be done on random basis; the strata formed were definite and clear cut; each stratum was free from influence of the other; and there was no overlapping.

Firstly the ‘universe’ was clearly defined. In the technical phraseology of research the whole population out of which the samples are selected is known as the ‘universe’. For the present research work the universe includes all the X class studying students in secondary schools of Andhra Pradesh. The study was
limited to a particular geographical area, viz., Prakasam and Nellore Districts, to facilitate appropriate sample selection and to avoid wastage of time and money.

Secondly, decision was made about the units of the sample. A unit of sample may be a house, a family, a group of individuals (or) a single individual. A good unit should possess the following characteristics. 1. clarity: the unit should be clearly defined in unambiguous terms. This would make the study easy and efficient. For the present research work, a sampling unit is defined as X class students studying in any secondary school of Prakasam and Nellore Districts. 2. Suitability: A good unit should be well suited to the problem under study. Since the problem is comparative study of high and low academic achievers, the unit selected is well suited to the problem. 3. Accessibility: The unit selected should be easily accessible to the researcher. If the units selected are difficult to reach and if he fails to use of them, the study would be vitiated. The selected sampling units, i.e. students studying X class in secondary schools are easily accessible since they could be approached in any secondary school.

Thirdly, availability of sample and preparation of the source list are very much essential. This is an important factor that makes representative selection possible. A source list is the list which contains the names of the units of the universe from which the sample may be selected. It may exist even before the beginning of the project (or) it may be prepared afresh by the investigator himself. Without a source list, study through sampling method is not possible.
For the present research work, a source list consisting of the names of secondary schools in Prakasam and Nellore Districts are used. Care was taken to see that the source list was up-to-date and valid and that there was no repetition of names of the schools. This source list was found to be relevant and suitable because it included secondary schools as the study deals with the personality characteristics of high and low achievers.

Besides considering these principles, 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 the results untenable. According to Parten, “An optimum sample in survey is one which fulfils the requirements of effective representatives, reliability and flexibility. The sample should be small enough to avoid intolerable sampling error”.

The size of sample for the present research work was decided after considering the following factors.

1. Since the intensive study was planned, a very large number of samples were not selected. In case of an intensive study a very large number of samples are not as useful as they involve huge consumption of the resources. A smaller sample will be convenient.

2. The size and selection of the samples are also influenced by the nature of universe. If the universe is homogenious, even a small-sized sample may yield dependable and required results. If the universe is heterogeneous,
small-sized samples may not be useful. In the case of the present study the heterogeneous universe was split into smaller homogenous strata (or) groups and then the sample were selected from these strata. For example, X\textsuperscript{th} class students of Prakasam and Nellore Districts were broadly grouped under high and low achievers, and Government and private and rural and urban high school students. A sample was selected from each of these groups.

3. The researcher needs to determine the number of the groups to be formed. In case the number of groups proposed is large, the size of the samples shall have to be large so that every group is of proper size and suits the requirements of the study; in case the number of groups proposed is small, even small-sized samples can fulfill the requirement In case of the present study, the universe was divided into Boys and girls students, Government and private school students, urban and rural school students. Since the number of groups was moderate, a reasonable sample was selected from each of these groups.

4. Practical consideration and accuracy will 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. Generally, it is believed that a large-sized sample is more representative and usually produces accurate results. This of course, mainly depends upon the technique of sampling used. If the sampling technique is
scientific, even small–sized samples can produce dependable and accurate results. While selecting the size of the sample for the present study, practical considerations like the availability of resources and time were taken into consideration. Care was taken to make the sample selection technique as scientific as possible.

5. The size of the sample is also governed by the size of the tools to be used. In case the tools are short and the questions asked pertain to certain limited factors, large sample can be selected. In case the tools are large and the questions complicated, the sample should be small in size so that from administrative point of view, the researcher may not be put to unnecessary troubles. In the present study, as the tool selected belonged to affective domain, a very large sample was not selected.

6. The sampling method also determines the size of the sample. When random sampling method is used, the samples have to be large. On the other hand, if samples are selected through stratified sampling method, the reliability can be achieved even with the help of the small-sized samples.

Taking these factors into consideration which influence the size of the sample, it was decided to take an ideal sample of 800 students. This sample is small enough to avoid unnecessary expenditure and large enough to avoid intolerable sampling errors.
After deciding about the sampling method, the universe selected was divided into different strata. The variables chosen for the study are considered in dividing the universe. The sampling design employed here involved not only the stratification of universe but also random sampling technique to select samples from within the stratum.

The total sample of 800 students consisted of high achievers (400); low achievers (400); Boys (high achievers, 200); Boys (low achievers, 200); Girls (high achievers 200) and Girls (low achievers, 200).

The data i.e. the marks obtained by 1400 high school students in their Unit-I, Unit-II, Quarterly, Unit-III, Half-yearly, Unit-IV and Annual examinations at X Class were collected and from among them 400 high academic achievers were selected (by using the formula M+1S.D). Among them 200 are boys and 200 are girls. Similarly 400 low academic achievers were selected (by using the formula M-1S.D). Among them 200 are boys and 200 are girls. Only 800 students were administered HSPQ to collect the data. The remaining 600 students with average academic achievement were not considered in the present study since the objective of the study is to compare the personality characteristics between high and low academic achievers. Distribution of the sample is presented in the Table-1.
<table>
<thead>
<tr>
<th>S. No.</th>
<th>Division</th>
<th>Name of the School</th>
<th>Locality</th>
<th>Management</th>
<th>Type of School</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td>Z.P.H. School, Kavali.</td>
<td>Urban</td>
<td>Z.P.</td>
<td>Boys</td>
<td>24</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td>Z.P.H. School, Kavali.</td>
<td>Urban</td>
<td>Z.P.</td>
<td>Girls</td>
<td>50</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td>Z.P.H. School, Musunur.</td>
<td>Rural</td>
<td>Z.P.</td>
<td>Co-Education</td>
<td>14</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td>Z.P.H. School, Venkateswarapalem.</td>
<td>Rural</td>
<td>Z.P.</td>
<td>Co-Education</td>
<td>28</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td>Municipal High School, 8th Ward, Kavali.</td>
<td>Urban</td>
<td>Municipality</td>
<td>Co-Education</td>
<td>50</td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td>Viswodaya High School, Kavali.</td>
<td>Urban</td>
<td>Aided</td>
<td>Boys</td>
<td>50</td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td>Viswodaya High School, Kavali.</td>
<td>Urban</td>
<td>Aided</td>
<td>Girls</td>
<td>50</td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td>Vidyalankar Public School, Musunur.</td>
<td>Rural</td>
<td>Private</td>
<td>Co-Education</td>
<td>41</td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td>Govt. High School, Singarayakonda.</td>
<td>Rural</td>
<td>Govt.</td>
<td>Boys</td>
<td>36</td>
</tr>
<tr>
<td>11.</td>
<td></td>
<td>Z.P.H. School, Singarayakonda.</td>
<td>Rural</td>
<td>Z.P.</td>
<td>Girls</td>
<td>30</td>
</tr>
<tr>
<td>13.</td>
<td></td>
<td>Chaitanya High School, Singarayakonda.</td>
<td>Rural</td>
<td>Private</td>
<td>Co-Education</td>
<td>50</td>
</tr>
<tr>
<td>14.</td>
<td></td>
<td>Sree Vidyanikethan High School, Tangatur.</td>
<td>Rural</td>
<td>Private</td>
<td>Co-Education</td>
<td>60</td>
</tr>
<tr>
<td>15.</td>
<td></td>
<td>Sahasra Concept School, Kamepalli.</td>
<td>Rural</td>
<td>Private</td>
<td>Co-Education</td>
<td>21</td>
</tr>
<tr>
<td>17.</td>
<td></td>
<td>Z.P.H. School, Brahamanekaka.</td>
<td>Rural</td>
<td>Z.P.</td>
<td>Co-Education</td>
<td>25</td>
</tr>
<tr>
<td>18.</td>
<td></td>
<td>Z.P.H. School, Jaldanki.</td>
<td>Rural</td>
<td>Govt.</td>
<td>Co-Education</td>
<td>40</td>
</tr>
<tr>
<td>19.</td>
<td></td>
<td>Prathibha Public School, Jaldanki</td>
<td>Rural</td>
<td>Private</td>
<td>Co-Education</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>800</strong></td>
</tr>
</tbody>
</table>
3.6. Selection of Research Tool:

A research tool plays a major role in any worthwhile research as it is the sole factor in determining the sound data and in arriving at perfect conclusions about the problem (or) study in hand which, ultimately, helps in providing suitable remedial measures to the problem concerned.

A great variety of research tools has been developed to aid in the acquisition of data. These tools are of many kinds and employ distinctive ways of describing and quantifying data. Each tool is particularly appropriate for certain sources of data yielding information of the kind and in the form that would be most effectively used, like the tools in the carpenter’s chest. Each is appropriate in a given situation.

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 own study. Here, there are many problems in doing so. Preparation and standardization of a perfect tool itself is a major task, and one can easily say that it is a doctoral study itself. A note of caution has to be taken when a researcher develops a tool for his study by merely pooling up some items and does not subject it to the sophisticated techniques of tool construction. The result would be then, obviously, a poor quality research. With this, one can say that preparation and standardization of tools is a major task, and one should take care of aspects like selection of area and sample, pooling up of statements related to the area and sample, consulting the experts and application of sophisticated statistical techniques.
The second way of selection and use of tools is right selection of tools from already standardized ones available in the field of study. Here also it involves a tedious job in locating the tools and identifying their usefulness to the study on hand. Even then, this technique is very useful when a research work is taken up to study in depth and when the research work involves a good number of variables. Some people believe that some of the instruments available do not measure up to their standards. Hence new ones. In some instances, consideration should be given to the logistics of the situation. Lacking time and financial resources, many researchers 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 his purpose.

**Questionnaire:**

It is a form containing a series of questions related to some psychological, social, educational or any other topic with space provided for indicating the response to each question, intended for submission to a number of people for reply with the object of obtaining data with regard to some problem. It helps to get information about interests, attitudes, opinions, judgments, or facts.

Barr Davis and Johnson (1952) define questionnaire as “A systematic compilation of questions that are submitted to a sampling of population from which information is desired.”
Questionnaire falls under data gathering devices which make use of properly prepared forms for inquiring into and securing information about certain phenomena under study. Generally the word ‘questionnaire’ refers to a device for securing answers to question by using a form which the respondent fills in himself.

The questionnaire has an important place in educational research. It is simple and clear form to get objective results in the best possible way.

The questionnaire was developed and used for collecting the opinions of the person included in the sample for investigation. The study aimed at knowing the degree of acceptance (or) divergence from one’s opinion to others among the individuals in the sample.

Considering the flaws and merits of the selection of tools in either way, it was thought that to select a standardized questionnaire as a tool for the present study is more appropriate and suitable and, hence the Jr-Sr High School personality Questionnaire (HSPQ) for ages twelve through eighteen years was developed and standardized by Raymond B.Cattell, Research professor in Psychology, University of Illinois and Mary D.L.Cattell, IPAT Staff (1976, first Indian reprint) and printed by Adarsh & Co., New Delhi and published by the psycho-centre, New Delhi – 110016, printed in India has been selected to study the personality characteristics of high and low academic achievers.
Personality Questionnaire:

Personality of an individual plays an important role in his / her scholastic achievement. The review of related literatures showed that there are a number of studies showing the relationship between personality and scholastic achievement at school level. Hence the investigator felt a need to investigate the relationship between personality of the child and its scholastic achievement particularly, the achievement in all subjects of X class students. This motivated the investigator to search for a suitable personality questionnaire.

The investigator studied all the personality theories and searched for a suitable means of measuring the total behaviour of an individual and is convinced that Cattel’s theory, of all the various theories, is the only theory based on the principle of totality of behaviour of an individual.

Selection of the tool (HSPQ):

Different psychologists have given different definitions for the term “personality”.

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’. One can not pass a Judgment over one’s personality, by just looking through one’s physique (or) sociability. One has to go carefully into all the aspects, biological and social
and then only one can assess the personality of an individual. Sometimes some researchers and even psychologists fall easily into the mistake of settling on a single test for dealing with any one dimension of personality, for example extroversion, self realization etc and from that they try to assess all kinds of behaviour, which is not advisable.

For the individual all aspects of behaviour, thought and feeling that make the person unique. For psychologists a major area of theory and research (Derek Rowntree 1981).

Keeping this in view, the personality of the students in the present study is assessed using Cattell’s Junior– Senior High School personality questionnaire (HSPQ). It is applicable to the age group of students 12 to 18 years. It is a culture free test. It helps to obtain scores on 14 dimensions of the personality. They represent basic concepts, which are understood by psychologists, so that insightful understandings of the individual and his development as well as statistical predictions are possible. The above point is weighted in favour of selecting the HSPQ for assessing the personality traits of the students. Cattell’s 14 personality factors are given here under.

Allport asserts “traits are not discovered by inference by reasoning, not by faith, not by naming and are themselves never directly observed. They are discovered only through deductions made necessary by the provable consistency of the separate observable acts of behaviour”. 
Cattell’s (1961) opinion is that the traits, which are evaluated by HSPQ test, are the coil of human behaviour. Cattell defined personality as “that which permits a forecast of what the person will do in a given situation”. It is reliable with the connection of Hillix and Marri (1973) that the theory of personality is truely identical with general theory of behaviour for Cattell’s definition would fit theory of behaviour.

Vernon (1963) views that a person’s behaviour in any situation depends upon specific features of that situation and on his temporary feeling (or) state of mind, but it depends also on his more stable characteristics, abilities, more general dispositions and habits which may be called traits.

In the light of above theoretical and practical thought, the researcher selected the Cattell’s High School Personality Questionnaire (HSPQ) in the present study.

The factors of the HSPQ are as follows.

Factor A - Sizothymia (Vs) Affectothymia.
Factor B - Low intelligence (Vs) High intelligence
Factor C - Lower ego strength (Vs) Higher ego strength.
Factor D - Phlegmatic temperament (Vs) Excitability
Factor E - Submissiveness (Vs) Dominance
Factor F - Desurgency (Vs) surgency
Factor G - Weaker superego strength (Vs) stronger super ego strength
Factor H - Threctia (Vs) parmia
Factor I - Harsia (Vs) premisa
Factor J - Zeppia (Vs) Coasthenia
Factor Q₁ - Untroubled (Vs) Guilt Proneness
Factor Q₂ - Group dependency (Vs) self sufficiency
Factor Q₃ - Low self-sentiment integration (Vs) High strength of self –sentiment
Factor Q₄ - Low ergic tension (Vs) High ergic tension

**Feature of the HSPQ:**

In summary, the special characteristics of the Jr-Sr High School personality Questionnaire are:

1. It includes all of the more adequately research demonstrated dimensions of personality from the general personality sphere. They are, thus, the objectively determined source traits that are of potential importance in clinical, educational and counselling practice.

2. By adding measures on this comprehensive series of personality dimensions to what is usually covered by ability measurement, the psychologist is able to increase the accuracy of prediction of school achievement obtained from intelligence tests.

3. The test results give the teacher a psychologically insightful understanding, as well as a precise, quantitative evaluation of those aspects of a particular pupil’s personality contributing to, (or) detracting from, his performance in school and his social adjustment inside and out side the class room.
4. The complete profile of fourteen scores provides a broad basis for the routine accumulation of adequate records (on an annual) regarding a child’s personality development. For it employs the same sires of personality scale concepts as are developmentally involved at other ages, and which can be measured by other IPAT tests.

5. These personality measures and concepts are equally relevant to child guidance, counselling, and class room purposes.

6. The test format answer sheets are administrable with equal facility in both group and individual testing situations.

7. The availability of equivalent form enables an examiner to use either a short (or) a more extended version of the test according to the particular compromise of higher reliability and greater brevity of testing time which suits him. The same “telescopic principle”, achieved by several parallel forms, also allows retesting of the same subjects immediately, whereas a week (or) more might need to elapse safely to retest with the same form.

That the test measures as set of fourteen factorially independent dimensions of personality has already been stated. What is now necessary is that the psychologist shall get a thorough grasp of their nature, and appreciate more precisely research foundations on which they stand.
3.7. Description of the HSPQ Factors:

**Factor A: SizothymiaVs. Affectothymia**

The persons, who scored low on Factor-A tends to be stiff, cool and alone. He likes things rather than people, working alone and avoiding class of view points. He is likely to be precise and rigid in his way of doing things and personal standards.

The person who scores high on Factor-A, tends to be more mature, easy going, emotionally expressive, ready to co-operate, attentive to the people, soft hearted, kindly adaptable. He readily forms active groups. He is generous in personal relations, less afraid of criticism and better able to remember the names of the people.

**Factor B: Less Intelligent Vs. More Intelligent**

(Less intelligent, concrete thinking Vs. more intelligent, abstract thinking).

The person scoring low on Factor-B tends to be a slow learner, dull and sluggish. He tends to have little capacity for higher forms of knowledge.

The person who scores high on Factor-B tends to be more intelligent, quick in grasping, and a fast learner. Low score, in contrast indicates deterioration of mental functions in pathological conditions.

**Factor C: Emotionally Less Stable Vs. Emotionally Stable**

The person who scores low on factor-C tends to be low in frustration tolerance for un-satisfactory conditions and neurotically fatigued.

The person who scores more on Factor-C tends to be emotionally mature, more stable, calm, and be able to maintain high group morale.
Factor D: Phlegmatic Vs. Excitable

Phlegmatic, Deliberate, Inactive Vs. excitable, Impatient, Demanding Overactive.

The person scoring low on factor-D is thought of same as ‘C’ with which it has some behavior in common. However, it is distinguishable by more immediate, “temperate mental” quality of excitability and by an irresponsible, positive, assertive emphasis in emotionality.

The person who scores high on ‘D’ tends to be a restless sleeper, easily distracted from work by noise. He is hurt and angry, if he is not given important positions.

Factor E: Submissiveness Vs. Dominance

The person who scores low on factor-E tends to be dependent, a follower, and takes action which goes along with the group. This, positively, is part of many neurotic syndromes.

The person who scores high on factor-E tends to be assertive, self assured, independent, bold in his approach to the situations. He may at times, be hard, a law to himself, hostile, authoritarian and dis-regards authority.

Factor F: Desurgency Vs. Surgency

(Sober, Taciturn, Serious Vs. Enthusiastic, heedless, happy – go- lucky).

The person who scores low on Factor-F tends to be restrained and introspective. He is some times pessimistic, anxious and considered to be swung- he tends to be a sober, dependable person.
The person who scores high on this factor tends to be cheerful, active, talkative, frank, expressive, quick and un-perturbable. He is frequently chosen as an elected leader. He may be impulsive and mercurial.

**Factor G: Moral Standards Vs. Super ego-strength.**

(Expedient, Disregards Vs. conscientious, persistence, moralistic, staid).

The person who scores low on factor ‘G’ tends to be unsteady in purpose. He is often casual and lacking in effort for group under takings and cultural demands.

The person who scores high on this factor tends to be strong in character, persevering, responsible, determined, consistent, playful and well organized. He prefers hard working people to witty companions.

**Factor H: Threctia Vs. Parmia**

(Shy, timid, restrained, threat-sensitive Vs. Adventurous, thickskin, socially bold)

The person who scored low on ‘H’ tends to be shy, with-drawing, cautious, retiring, and cooling. He usually has inferiority feelings. He tends to be slow in speech, dislikes occupations with personal contacts and prefers one (or) two close friends to large groups and is not given to keeping in contact with all that is going on around him.

The person who scores high on this factor tends to be more sociable, bold, ready to try new things, spontaneous and abundant in emotional response. His “thickskinnedness” enables him to face wear and tear in dealing with people. He tends to be pushy and actively interested in the opposite sex.
Factor I: Harria Vs. Premsia

(Tough minded, rejects illusions Vs tender-minded, sensitive, dependent, over protected)

The person who scores low on Factor-I tends to be practical, realistic, masculine, independent, responsible but skeptical of subjective and “uncultured”. He is sometimes unmoved, hard, cynical, and smug.

The person who scores high on this factor tends to be tender-minded, daydreaming, artistically fastidious. He is sometimes demanding of attention and help, impatient, dependent and impractical. He dislikes crude people and rough occupations. He tends to be slow in group performance.

Factor J: Zeppia Vs coasathyenia

(Zestful, liking group Vs. circumspect Individualistic, reflective Internally Restrained)

The person who scores low on Factor-J has ‘no’ for a difficult pattern to interpret. It has been called variously the Hamlet factor, neurasthenia, etc.

The person who scores high on this trait prefers to do things on his own, is physically and intellectually fastidious, thinks over his mistakes and how to avoid them, tends not to forget if he is unfairly treated, has private views differing from the groups, but prefers to keep himself in the background and avoid argument, knows he has fewer friends.
Factor ‘Q₁’: Untroubled Adequacy Vs Guilt proneness

(Placid, confident, serene, complacent Vs Apprehensive, worrying, Insecure, troubled, self-reproaching).

The person who scores low on factor–Q₁ tends to be placid, calm, with unshakable nerve. He has a mature, unanxious, confidence in himself and has capacity to deal with things. He is resilient and secure.

The person who scores high on Factor-Q₁ tends to be depressed, moody, worried, suspicious, brooding and avoiding people. He has a child like tendency and tenolstale anxious anxiety in difficulties. He does not feel accepted in groups (or) free to participate.

Factor Q₂: Group dependent Vs self-sufficient

(Sociably Group dependent, A Joiner and sound follower Vs self sufficient. Resourceful, prefers own decisions)

The person who scores low on Factor-Q₂ prefers to work and make decisions with other people and depends on social approval and administration. He tends to go alone with the group and may be lacking individual resolution. He needs group support.

The person who scores high on this trait, is temperamentally independent, accustomed to go his own way, making decisions and taking action on his own. He discounts public opinion, but is not necessarily dominant in his relation with others. He does not dislike people but simply does not mind their agreement (or) support.
**Factor Q₃: Low self-sentiment integration Vs. High strength of self-sentiment.**

(Undisciplined, self conflict, careless of protocol, follows own urges, low integration Vs. controlled, socially precise, self disciplined, compulsive, high self concept, control, exacting will power).

The person who scores low on Factor–Q₃ will not be bothered with will-control and regard for social demands. He is not over considerate, careful or painstaking. He may feel, maladjusted.

The person who high Factor-Q₃ tends to have strong control of his emotions and general behaviour, inclined to be socially aware and careful with regard to social reputations. Effective leaders and some paranoids are high on Q₃.

**Factor Q₄: Low ergictension Vs. High ergictension**

(Relaxed, tranquil, torpid, unfrustrated, Composed Vs Tense, driven overwrought, frustrated.)

The person who scores low on factor Q₄ tends to be sedate, relaxed, composed, and satisfied. In some situations, his over satisfaction may lead to laziness and low performance in the sense that low motivation produces little trail and error.

The person who scores high on this trait, tends to be tense, excitable, restless, fruitful, and impatient. He is often fatigued, but unable to remain inactive. In groups, he likes a poor view of the degree (or) unity, orderliness and leadership.
One of the Unique features of 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 pure factors. In other words, the HSPQ of Cattell has factorial validity. The research carried out over years with these factors, has produced constant and substantial correlation of these primary factor scales, to a wide array of criteria in educational, clinical, occupational and other areas establishing its criterion of validity.

Having decided to make use of HSPQ (Cattell’s), the questionnaire is translated into Telugu, the mother tongue and the regional language of the subjects on whom, it has to be applied. Five judges who are well versed with psychological testing, checked the translation. Necessary instructions are given to the students and they were asked to answer the items as per the instructions given to them.

3.8. Adoption of the instrument (HSPQ):

Junior–Senior High School Personality Questionnaire (HSPQ) Form-A, prepared and standardized by Cattell (1950) is adopted for the study. Telugu version of HSPQ Form-A is used for the present study.

A copy of Personal Data Sheet of English version in Appendix-A
A copy of the English version of HSPQ Form-A is presented in Appendix-B
A copy of the answer sheet for HSPQ is presented in Appendix –C
The scoring key of HSPQ is given in Appendix-D
A copy of Personal Data Sheet of Telugu version in Appendix-E
A copy of the Telugu version of HSPQ Form-A is presented in Appendix-F
3.9. Validity and Reliability of HSPQ:

For calculating Validity and Reliability, the procedure suggested by Garrett (1973) is followed. Reliability of two subjects of each factor as obtained by the split half technique and validity, which is the square root of reliability are presented in Table A. The spilt half reliability is calculated on a sample of 250 pupils.

Table A: Reliability and validity of HSPQ Form-A, Using Split-Half Method

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELIABILITY</td>
<td>0.592</td>
<td>0.731</td>
<td>0.765</td>
<td>0.658</td>
<td>0.812</td>
<td>0.741</td>
<td>0.725</td>
</tr>
<tr>
<td>VALIDITY</td>
<td>0.769</td>
<td>0.855</td>
<td>0.875</td>
<td>0.811</td>
<td>0.901</td>
<td>0.861</td>
<td>0.851</td>
</tr>
<tr>
<td>FACTOR</td>
<td>H</td>
<td>I</td>
<td>J</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>RELIABILITY</td>
<td>0.721</td>
<td>0.691</td>
<td>0.712</td>
<td>0.567</td>
<td>0.762</td>
<td>0.646</td>
<td>0.657</td>
</tr>
<tr>
<td>VALIDITY</td>
<td>0.849</td>
<td>0.831</td>
<td>0.844</td>
<td>0.753</td>
<td>0.873</td>
<td>0.804</td>
<td>0.8011</td>
</tr>
</tbody>
</table>

Re-test was also conducted on a sample of 250 pupils with a gap of 15 days. The test retest Validity and Reliability for each is presented in the Table.

Table B: Reliability and Validity of HSPQ- Form A Using Test Retest Method

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELIABILITY</td>
<td>0.552</td>
<td>0.741</td>
<td>0.782</td>
<td>0.672</td>
<td>0.852</td>
<td>0.741</td>
<td>0.732</td>
</tr>
<tr>
<td>VALIDITY</td>
<td>0.742</td>
<td>0.861</td>
<td>0.884</td>
<td>0.820</td>
<td>0.923</td>
<td>0.861</td>
<td>0.856</td>
</tr>
<tr>
<td>FACTOR</td>
<td>H</td>
<td>I</td>
<td>J</td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
<td>Q4</td>
</tr>
<tr>
<td>RELIABILITY</td>
<td>0.798</td>
<td>0.645</td>
<td>0.712</td>
<td>0.704</td>
<td>0.716</td>
<td>0.676</td>
<td>0.721</td>
</tr>
<tr>
<td>VALIDITY</td>
<td>0.893</td>
<td>0.803</td>
<td>0.844</td>
<td>0.839</td>
<td>0.846</td>
<td>0.822</td>
<td>0.849</td>
</tr>
</tbody>
</table>
3.10. Administration of TOOL:

It is advised that before administering the test, a tester should be careful of the following points.

1. The place of administration of the test should be such that the testee may work comfortably and without any disturbance. The usual setting for the test administration is the class room. But the tester should be careful that the class is not over crowded. A maximum of 30 subjects should be taken for group administration at a time in a given room, seeing the size of the room.

2. The subjects should be properly motivated to take the test. The word ‘test’ should however never be used between the duration. Rather it should be presented as a set of interesting statements which the subjects would enjoy responding to what is important is to avoid a threatening situation which is frequently associated with testing.

3. The language used by the test administrator in giving instructions to the subjects should be as simple as possible so that each one understands what is required.

4. The test administrator should see that each subject has available with him a pen (or) pencil. He should however have a stock of pens (or) pencils with him so that he may be able to meet any emergency situation.
Having selected the schools, following stratified random sampling method, the investigator consulted the heads of institutions selected, personally explained to them the purpose of the test and took their permission for holding the test. The test dates for different schools were intimated sufficiently in advance. The students were thoroughly motivated for the test and they were given proper instructions for answering the different test items. The investigator visited all the schools personally, as decided and intimated earlier. The set of HSPQ is given to the students and with the help of teachers of concerned schools, the tests are administrated. Through inspection is made with the help of concerned school teachers, when the students are answering the different test item, the students who attended the school on the day of collection of data are considered for the purpose of investigation.

The Telugu version of HSPQ is administered on all the pupils (w=800) with the help of teachers in the morning session. Thorough inspection is done to see whether the students are following the instruction (or) not. All the answer sheets are collected evaluated, as per the scoring key. All the data gathering instruments are collected from the students and they are evaluated following the weightage given by the test constructing authorities concerned. All the collected data are given for statistical analysis.

The results of validity and Reliability of HSPQ Form-A show that all the factors of HSPQ are highly valid and reliable
3.11. Final Structure and Scoring Procedure for HSPQ:

The result of the following steps in construction is a test of 142 items (140 plus 2 “buffer” items) in each form, carrying ten items per factor per form. Three alternatives are given for each item. The student has to choose only one alternative which he feels is appropriate for him. The scoring is done for each student and for each factor using the scoring key given by the author.

3.12. Design of the Sample:

According to Cochran “The Purpose of sampling studies is to make sampling more efficient. It provides the lowest possible cost estimate that are precise enough for our purpose”.

The present study aims to compare the personality characteristics of the students, who are studying in high schools in the State of Andhra Pradesh. Hence the sample was collected from high schools. Therefore the sample is purposive. The schools selected for the study were stratified random. Hence the present sample is purposive stratified random sample.

The present sample is geographically divided into two divisions.

1. Kavali division of Nellore District of Andhra Pradesh.
2. Kandukur division of Prakasam District of Andhra Pradesh.

In each of the divisions some schools were selected on stratified random basis as stated below: The total sample is 800 (N=800). Therefore some students were selected in each division. Out of the total sample, 400 students high achievers and 400 students low achievers; 400 students from Boys and 400 Students from Girls; 400 Students from Urban and 400 students from Rural; 400 students from Govt. high schools and 400 students from Private high schools.
Flowchart: Showing the Design of the Sample

10\textsuperscript{th} Class Students
$N = 800$

High Achievers (400)

Boys (200)

Rural (100)

Govt. (50)

Private Govt. (50)

Low Achievers (400)

Girls (200)

Rural (100)

Govt. (50)

Private Govt. (50)

Boys (200)

Rural (100)

Govt. (50)

Private Govt. (50)

Girls (200)

Rural (100)

Govt. (50)

Private Govt. (50)

Urban (100)

Private Govt. (50)

Urban (100)

Private Govt. (50)

Urban (100)

Private Govt. (50)

Private Govt. (50)

Urban (100)
Figure-1: Showing the sample according to the variables
Figure-2: Showing the sample according to the variable
3.13. Collection of the data:

The Investigator visited personally to the above mentioned 19 Schools with prior permission of the concerned Head Master/Principal of the schools. In each schools some student from X Class selected on stratified randomly. They were properly motivated to response genuinely to all the items given to them.

The Researcher conduct test for X Class students. In the first session HSPQ booklet and answer sheet was given to the students. All the instructions were given to the students and clarified doubts. Sufficient time was given to the student for filling answers. After completion of the HSPQ test the researcher thanked the students, Head Master and the Staff for their Co-operation.