CHAPTER – III

PLAN AND PROCEDURE

3.1 INTRODUCTION

In the pervious chapter the researcher has given a brief account of the related literature of concern study.

This chapter deals with the procedure for the present research work. Researcher has described and mentioned about the data gathering tools (Standardized tests), sample selection procedure and the analysis of data.

Research has proved to be an essential and powerful tool in leading man towards progress. There would have been very little progress as we find it today, without systematic research.

“The secret of our cultural development has been research pushing back the areas of ignorance by discovering new truths which in turn, leads to better ways of doing things and better products.

Research is devoted to find the conditions under which a certain phenomenon occurs and these under which it does not occurs and these under which it does not occur. The ‘research’ consists of two words ‘Re’ and ‘search’ ‘Re’ means again and again and ‘search’ means to find out something new. Thus research is the processes of which a person observes the phenomena again and again collects the data and the draw some conditions on the basis of data.

Research is oriented towards the discovery of relationship that exists among different phenomena of the world. It is based on the fundamental assumptions that invariant relationship exists between certain antecedents and certain consignments so that under a specific set
of conditional certain consequents can be expected to follow the introduction of given antecedental

The purpose of research is progress and good life. Good education has been recognized as the basis of individual and social development. Therefore the need of research in education process and policies is being realized increasingly. Educationalists and constantly searching for more effective methods of instructions, Efforts are being made to find out more satisfactory techniques of evaluation, richer learning materials, better physical facilities, more efficient systems administrative organization and so on. This research becoming more important due to very rapid expansion and democratization of education during the last few decades. The nations of the world will have greatly expand their educational efforts, more facilities must be provide, more teachers must be trained, new curricula must be developed; and new teaching materials must be provided. It is inconceivable that this can be done at all, without detailed guidance from the facts collected and the principal established through educational research. The present research is aimed at the gathering information regarding aspects of personality and self concept of adolescents who are studying in 11th and 12th standards.

3.2 RESEARCH DESIGN OF THE STUDY

The present research is being a descriptive research which includes survey and fact finding inquires of different kinds. The major purpose of descriptive research is description of state of affairs as it exits at present.

A descriptive research describes and interprets ‘What is?’ It is concerned with relation that exists opinions that are held, processes that is going on, effect that are evident or trends that are developing.

Descriptive researches are designed to obtain and pertinent and precise information concerning the current status and whenever possible
to draw general conclusion from the facts discovered. They may result in solution of significant problems concerning local state, national, international issues they are more than just a collection of data, they involve the measurements, classifications, analysis, comparison and interpretation.

Selection of the sample for this study

There are 24 Junior colleges are in Kolhapur city. Out of these approximately 25% colleges i.e. 6 Junior colleges where selected randomly for this study. (See Appendix No. 4)

Out of whole population of the Junior colleges we select only 1000 (35%) adolescent students randomly for this study. Out of these 1000 students 500 males and 500 females those who are studying in 11th and 12th standards and in different faculties of Science, Art and Commerce.

The random sampling method was used for the selection of Junior colleges and the random and purposive sampling method was used for the selection of these adolescents students.

3.3 SURVEY METHOD

Descriptive researches are mainly concerned with the survey method which gathers data from a relatively large number of cases at a particular time. It is concerned with the generalized statistics from a number of individual cases

Basically survey deals with research question ‘What is?’ with possible some emphasis on attempting explanation. Survey Method may also deal with the incidence of interrelationships of sociological and psychological variables, usually as they occur in some educational context.
Survey method can include a status quo study or a study in which interrelationship of sociological and psychological variables are determined and summarized. To enhance definition and understanding it is helpful to classify the survey methods

The classifying scheme used to includes two criteria quite arbitrarily chosen. This criteria apply whether survey consists of a status study or whether it includes the interrelationship of sociological or psychological variables.

One Criteria for the calcification of survey is the group of measured a sample or population surveys can be used with larger once. It may be physically and financially impossible to include an entire population. In case of large population the time involved in measuring the entire population might actually reduce the accuracy of measurements. This random sample counted acutely provide greater accuracy than measurement of entire population, because it would no contains this effect of larger time span.

A sample survey involves the selections of subject of the population called a sample to be measured. The sample selected is usually same type of random sample. When sample is used the researcher attempts generalized from the sample observations to the population from which the sample was selected.

In a social survey sometimes complete coverage’s of the universe is neither possible nor advisable. In such cases a representative sample is generally drawn.

A survey may be conducted by either of two methods –

2. Sampling Method.

The Census Method is complete enumeration of the whole population, it requires a lot of time, money, manpower and administrative personnel.
Different types of sampling techniques are used for drawing a sample plan.

The researcher used the survey method for the collection of the data.

### 3.4 SAMPLE DESIGN OF THE STUDY

The random and purposive sampling method was used for the selection of Junior colleges as well as the selection of the students.

Sampling is fundamental to all statistical methodology of behavioral and social research.

“In early branch of science we lack resources of study more than a fragment of phenomenon that might advanced our knowledge.”

In this definition a ‘fragment’ is the sample and phenomenon is the ‘population’. The sample observations are applied to the phenomenon i.e. generalization.

(W.G. Cocharan 1968)

In social sciences, it is not possible to collect the data from the every respondent, relevant to our study but only from sum fractional part of respondent. The process of selecting the fractional part is called sampling.

(Davids, Fox 1977)

In the strict sense of the term a representative sample which would be miniature or replica of the population, at least with respect to characteristics under investigation, it not in all respect.

(Mouley, 1970)
“The size of sample may be or may not be significantly related to its adequacy. A large sample carelessly selected, may be biased and accurate where as smaller one carefully selected, may be relatively unbiased and accurate enough to make satisfactory possible.”

(J.W. Best, 1982)

Random Sampling

A Random Sample is a sample selected in such a way that each element of the population has an equal and independent chance of being included in the sample. Thus the sample selected by randomization method is known as random sample. Randomization is done by using the following techniques.

Lottery Method –

Under this method various units of the universe are numbered on small or identical slips of papers which are folded and mixed together in a drum thoroughly. A blind fold selection is then made of the number of slips required to constitute a desired size of sample.

The present study is concerned with the survey of personality and the self-concept of the adolescents studying in 11th and 12th standards in different schools and colleges.
Selection of Schools /Colleges

There are total 24 Junior Colleges in Kolhapur City. Researcher selected 25% Junior colleges means 6 Junior colleges randomly for this study. The colleges were selected by random sampling.

Table No. 1
Distribution of the sample (college wise)

<table>
<thead>
<tr>
<th>Type</th>
<th>Total No. of Junior colleges in Kolhapur</th>
<th>Selected Jr. Colleges</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior College</td>
<td>24</td>
<td>06</td>
<td>25%</td>
</tr>
</tbody>
</table>

Selection of Adolescents –

From these selected Junior colleges out of the total adolescents students studying in 11th and 12th standards in Science, Arts and Commerce. faculties researcher selects 35% adolescents i.e. 1000 adolescents randomly. Out of these adolescents 50% each Male and Female, while same weightage given for the three faculties Science, Arts and Commerce.

Table No. 2
Distribution of the sample (Adolescents) sex wise and faculty wise

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Sex of the Adolescents</th>
<th>Faculty</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Science</td>
<td>Arts</td>
<td>Commerce</td>
</tr>
<tr>
<td>1</td>
<td>Males</td>
<td>167</td>
<td>167</td>
<td>166</td>
</tr>
<tr>
<td>2</td>
<td>Females</td>
<td>166</td>
<td>167</td>
<td>167</td>
</tr>
<tr>
<td>3</td>
<td>Total</td>
<td>333</td>
<td>334</td>
<td>333</td>
</tr>
</tbody>
</table>
The researcher selected 333, 334 and 333 students in Science, Arts and Commerce faculties respectively for the study.

**Selection of the sample**

Population (Junior Colleges in Kolhapur city)

24 Junior colleges

Sample is 25% i.e. 6 colleges and 1000 (35%) students selects by random sampling

- Science (333) (35%)
- Arts (334) (35%)
- Commerce (333) (35%)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Science</th>
<th>Arts</th>
<th>Commerce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>167</td>
<td>167</td>
<td>166</td>
</tr>
<tr>
<td>Female</td>
<td>166</td>
<td>167</td>
<td>167</td>
</tr>
<tr>
<td>(50%)</td>
<td>(50%)</td>
<td>(50%)</td>
<td>(50%)</td>
</tr>
</tbody>
</table>

**Data Collections**

Data had been collected from the selected six junior colleges and the adolescents studying in 11th and 12th standard. Collected data contains the respondent students under the age group of 15-17 years and 18+ years so the researcher classifies these students under the both the age groups

**Data gathering Tools –**

For the purpose of the study data gathering tools that were used in consultation with experts, keeping the objectives of the study in mind were.

**Questionnaire**

Before getting a questionnaire the researcher had to go through a number of studies regarding the importance of the questionnaire (Topp and Mcgrath have said as cited by Mouley 1970)
“A questionnaire is a systematic compilation of the questions that are submitted to the sampling of population from which information is desired.”

(Barr, Davis and Johnson 1975, P.318)

“In general the world questionnaire refers to a device for securing answers to the questions by using a form which the respondent will fills in himself.”

(W.J. Goode and K. Hatt)

“Fundamentally the questionnaire is a set of stimuli to which literate people are exposed in order to observe there verbal behavior under these stimuli.”

(G.A. Lundberg)

“A questionnaire is an emotional way of accumulating information of significance to education i.e. economical both for senders and for the respondent in time, efforts and cost that if it where eliminated progress in many areas of education would be greatly handicapped and much useful information test”

Questionnaire administered personally to group of individuals have a number of advantages. The person administering the instrument has an opportunity to establish rapport, to explain the purpose of the study, and explain the meaning of items that may not be clear. It is in such situation that the mailed questionnaire is probably both the most used and the most criticized data gathering devices.

This method of data collection is quite popular, particularly in case of big inquires. It is being adopted by private individuals, research workers, private and public organization and even by governments. In
this method a questionnaire give the respondents by personally or sent him (usually by post). With request to answer the questions and return the questionnaire. A questionnaire consists number of questions printed or typed in and definite order on form or set of forms.

3.5 DESCRIPTION OF DATA GATHERING TOOLS

In order to observe the maintained objectives of the research the researcher used the following tools for necessary data collection from the Junior college students (male and female) studying 11th and 12th standards in different faculties such as Science, Arts and Commerce.

Tool No. 1

(16 P.F. Questionnaire by S.D. Kapoor)

The 16 personality factor questionnaire (16 P.F.) is an objectively scoreable test devised by basic research is psychology to give the most complete coverage of personality possibly in brief time. The test was designed for use with individuals aged 15 and above. Forms A, B, C and D are most appropriate forms for individuals whose educational level is roughly equivalent. The researcher used form A for this study and is available through institute for personality and ability testing (IPAT)

The 16 P.F. can be scored by hand or by computer and proper type of answer sheet is available for this reason.

Comprehensive coverage of personality rests upon measurements of 16 functionally independent and psychological meaningful dimensions isolated and replicated in more than 14 years of factor analytic research as normal and clinical graphs.

The personality factors measured by the 16 P.F. are not just unique to the test, but instead rest within the context of a general theory of personality.
These 16 dimensions or scales are essentially independent. Any item in the test contributes to the score on one and only one factor so that no dependencies were introduced at the level of scale construction. Moreover, the experimentally obtained correlations among the 16 scales are generally quite small that each scale provides some new piece of information about the person being tested.

The questions are arranged in roughly in cyclic order determined by a plan to give maximum convince in hand scoring situation and to insure variety and interest for the examinee.

### 3.6 METHOD OF ANSWERING (PROCEDURE)

Three alternative answers are provided for each of the questions since the two alternatives “Forced – Choice” situation, forbidding any “middle – of – the road” compromise tends to force distorted distribution and may produce a version to the test on the part of the examinee.

**Administration**

The test can be virtually self administering, it is always important to establish good “rapport” with examinees, whether tested individually or in groups. Further, it is good to reinforce instructions by orally reiterating that examinees will in the long run be doing themselves most good by being frank and honest describing themselves.

The test is untimed but it is good remind examinees of the typical testing times and that they should not dally, but should give immediate answers and more along. In group tests if one wishes to avoid a long wait to stragglers it may be helpful to interrupt after about 10 min., saying “Don’t spent to much time thinking over each questions give the first the natural answer as it comes to you.” It is also good to look around and correct early any improper ways indicating answers that might later cause
difficulties in scoring. Make sure that names sex, age and form have been filled in before collecting answer sheets and especially that one and only one answer is given for each question on the test.

3.7 SCORING

A complete set of scoring material for the 16 P.F. hand scorable answer sheets consist of a set of scoring keys, norm tables for the appropriate test form and profile sheet for each answer sheet to be scored.

For obtaining low scores for the 16 P.F. are provided on the scoring keys. Each of two stencil keys scored half the 16 primary scales. Depending on which form is used the availability of distortion scales will be discussed on one of the keys, Scoring begins by fitting and aligning the first stencil key over the answer sheet and counting the marks visible through the holes of factor A, allowing either 2 or 1 as indicating by the number adjacent to the hole. Sum these scores and enter the total in the space indicated by the arrow on the stencil for factor A. (raw scores) but note that factor B (Intelligence is peculiar in that each correct mark visible in a hole give a score of 1 only. Continue scoring each factor on each scoring key until all row scores have been entered in the column on the extreme right hand side on the answer sheet. The raw scores are now ready to be converted to standard scores (sten scores) and the results profiled for easier review and interpretation.

Sten Scores (the term comes from standard ten) are distributed over 10 equal interval standard score points (assuming a normal distribution) from 1 to 10.

Reliability

Reliability is general term that describes a class of statistical technique addressing the precision of a scale. The standards for
educational and psychological testing (1985) describes reliability as an index that measures. “The degree to which test scores are free from the errors of measurement .” (p19)

While there are many ways to estimate the reliability the test retest method seems especially appropriate. With this method 16 P.F. is administered to a sample of people on two separate occasions; the correlation between the sets of scores from two administration are the reliability estimates. It is useful to make a further distinction in test retest reliability, based on the time intervals between test and retest. If the interval is short from on immediate retest to delay of 2 weeks, the dependability of the scale is being evaluated. Since personality traits are not to expect to change in such a brief interval should interval between administrations be long from several week to several years. The reliability is called stability of the scale. Here the average short interval reliability is 0.80; the long interval reliability is 0.52.

Validity

As the Standards (AERA/APA/NCME, 1985) point out, test validation is the process by which the evidence is accumulated to support inferences that may be drawn from a test score, various types of evidence may be produced depending on the type of test and the purpose to which the test scores may be put.

In the case of 16 P.F. there are two important classes of evidence that need to be considered. The first usually described as construct validity, focuses on the extent to which the test scores correctly measures the underlying traits they were developed to measure. The second focuses on the extent to which test score related to external outcomes such as success in job, performance in school, or response to treatment. This type of evidence is described as the criteria related test validity.
Establishing the construct validity of test score is a complex procedure. Relationship between the test scores and the other measures of the same construct must be examined to see whether they show the hypothesized structure.

The 16 P.F. developed to measures a core set of factorially independent personality traits. These factors represented primary dimensions of the universe of the words available in the English language to describe the personality. The first issue related to the construct validity of the 16P.F. is the extent to which the test itself is faithful to original factor model.

In terms of criterion related validity it is important to note that the test has been widely used in a variety of research applications. These results have been reported in several thousands different publications in the professional literature. However, the handbook is an important reference to summarizes many of the findings especially these that appear during the first 20 years the test was in use. The 16P.F. research bibliography is second important reference work that provides an index to much of the research between 1970 and 1975.

**Tool No. – 2**

**Self Concept Questionnaire by R.K. Saraswat**

In the data gathering tools the another questionnaire used is the self concept questionnaire prepared by R.K. Saraswat which I the standardized test. This test can be given within the class period to the individuals students to yield the general assessment of the self concept of the Jr. college student. This standardized test contents the six dimensions or factors of the self concept and they are –

1. Physical – In this factor we find the attitude of the student about his physical condition, healthiness and physical power
2. Social – from this factor we find the social position of the student.
3. Temperament – From this factor we find the emotional position and emotional reflection and reaction of the students.
4. Educational – From this factor we got the attitude of the student about the school, teacher and extra school activities and his responsibilities about these things.
5. Moral – From this factor we got the attitudes and the concept of the students about the good, bad things about the morality.
6. Intellectual – From this factor we got capacities and abilities of the students about the problem solving as well as decision making.

Administration

This standardized questionnaire is consist of 48 questions (statements) there are 5 alternatives of answer of these question. The student have read the particular question carefully and mark the proper answer as he want No answer is write as well as no answer is wrong i.e. the proper answer selected by the student is write about his self concept.

Scoring

In this self concepts questionnaire each question have 5 answers options to response and the marking system is like 5, 4, 3, 2, 1 for all students either that statement is positive or negative. If the students selects the first answer then he get 5 marks, for second answer he got 4 marks, for 3rd answer he got 3 marks, for 2nd answer he got 2 marks and for last answer student should get 1 mark. The total sum of each factor shows the self concepts with respect to that particular factor while the total sum of 48 statements shows the total self concept of the students i.e. the highest scores shows a very high self concept and lowest score shows low/average self concept.
### Reliability

<table>
<thead>
<tr>
<th>Code</th>
<th>Self concept factors</th>
<th>Statements</th>
<th>Reliability Coeff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Physical</td>
<td>8</td>
<td>0.77</td>
</tr>
<tr>
<td>B</td>
<td>Social</td>
<td>8</td>
<td>0.83</td>
</tr>
<tr>
<td>C</td>
<td>Temperament</td>
<td>8</td>
<td>0.79</td>
</tr>
<tr>
<td>D</td>
<td>Educational</td>
<td>8</td>
<td>0.88</td>
</tr>
<tr>
<td>E</td>
<td>Moral</td>
<td>8</td>
<td>0.67</td>
</tr>
<tr>
<td>F</td>
<td>Intellectual</td>
<td>8</td>
<td>0.79</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

Thus in this chapter the researcher has given a research procedure followed by him. The next chapter deals with the analysis and interpretation of the data.