CHAPTER – III

METHODOLOGY

3.1 PROBLEM:

Each and every research process starts with a problem; the basic element of research, which helps to transform an idea into concrete research operations. A problem is an intellectual stimulus calling for an answer in the form of scientific inquiry. It is a question about relations among variables. Research problem can be derived from a combination of these. Probably, the greatest source of problem is the professional literature. A critical review of the professional literature would familiarize the researches with the state of knowledge, with the problems that others studied, with concepts, theories, and major variables, conceptual and operational definitions and with the research methods used.

At each developmental stage different tasks are to be mastered and roles played effectively. Each developmental stage has its own unique demands to be met by the person. In the present scenario, life has become more and more charged with stresses and strains. These stresses and strain go on increasingly distressing human eco-system.
Statement of the Problem:

The present investigation attempt to *Study the Intelligence, Adjustment, Self-Concept Of Under And Over Achiever School Students As Related To Their Socio-Economic Status.*

3.2 OBJECTIVES OF STUDY:

The problem may further be spelt out in its objectives as follows:-

1. To assess the areas and degree of adjustment among academically under and over achiever students of different socio-economic status.

2. To measure the level of intelligence among academically under achiever and over achiever students of different socio-economic status.

3. To measures the level of self-concept among academically under achiever and over achiever students of different socio-economic status.

4. What is the pattern of relationship among all these three variables for different socio-economic status like higher, middle and lower respectively.
3.3 HYPOTHESES:

There is a little doubt that hypotheses are important and indispensable tools of scientific research. They are tentative answers to the research problems. They are expressed in the form of a relationship between independent and dependent variables. They are tentative conjectures because their veracity can be evaluated only after they have been tested empirically. When a researcher suggests hypotheses, he or she has no assurance that it will be verified.

Hypotheses can be derived deductively from theories directly from observations, intuitively or from a combination of these. hypotheses is the most powerful tool man has invented to achieve dependable knowledge. They are the prediction and even if they are not conformed, they have a power. Negative findings are sometimes as important as positive ones, since they cut down the total universe of ignorance and sometimes point up fruitful further hypotheses and lines of investigation.

In order to find out the different type patterns of self concept, intelligence, and adjustment level among academically underachiever and academically overachiever adolescents high school, the following alternative hypotheses are formulated.

1. There will be significant difference for different areas of adjustment among academically under achiever and over achiever students of various categories of socio-economic status.
2. There will be significant difference for different areas of intelligence among academically under achiever and over achiever students of various categories of socio-economic status.

3. There will be significant difference for different areas of self-concept among academically under achiever and over achiever students of various categories of socio-economic status.

4. The pattern of relationship among all the three socio-economic status will vary from each other.

3.3.1. RATIONALE OF HYPOTHESES:

There are certain specific determining factors for academically under achievers and academically over achiever adolescents of high school students. These contributory variables may be different types of self concept good and poor emotional, educational and social adjustment, high and low level of intellectual ability etc. The high school students may be classified on the basis of academic achievements in terms of under achievers and over achievers. The students with over academic achievement may have different types of self concept, different degree of emotional, social and educational adjustment, different anxiety level an different levels of intellectual ability from the students of under academic achievement. In addition to their mental emotional intellectual and behavioral differences may exist general socio-economic and cultural-environmental differences-between over and under
academic achieving the age, gender educational status, school setting like private and public school are also responsible for the discrepancy in the academic achievement and performance.

3.4 RESEARCH DESIGN:

There are several methods of data collection. A systematic and scientific methodology, which is referred to as research design determines the correctness and accuracy of the obtained results. The most valid and reliable method of scientific investigation is one characterized by observing the effect of experimentally manipulated variables while the extraneous, systematic or relevant variables are under control and other variables possibly introducing errors are minimized, if not totally eliminated.

A variable is a symbol to which numerals or values are assigned. It is a property that takes on different values, i.e. something that varies. Variables can be classified into several ways. The most important and useful way to categorize variable is and ‘Independent variable’ and ‘Dependent variables’. This categorization is highly useful because of its general applicability simplicity and special importance in conceptualizing and designing research and in communicating the results of research.

The independent variable as the explanatory variable, it is presumed cause of changes in the values of the dependent variable, the dependent
variable is the expected outcome of the independent variable. Dependent variables are also termed criterion variables and independent variables, as predictor variables. In the previous chapter, the statement of the problem and hypotheses have been provided. In the present chapter the research design, specific method and procedure of data collection is being described.

The present investigation attempt to study of social economic status in relation to intelligence, adjustment, self concept of academic achievers In such an approach the variables under study are not directly manipulated rather variation in the variable of interest is achieved by some sort of selection procedure

a) In the present study, a set of independent variable is intelligence, adjustment and self-concept of under and over achiever of school students, whereas a set of dependent variable is different socio-economic status like higher, middle and lower respectively.

b) A comparison of academically under and academically over achiever adolescents, degree of change in the level of adjustments and intellectual level as well as the level of adjustment in different area.

3.5 CONTROL:

The function of control variable in empirical research is to reduce the risk of attributing explanatory power to independent variables that input are not
responsible for the occurrence of variance in the dependent variable. Following controls are taken into control account.

1. For the present investigation, higher socio-economic status represents total annual income more than 12 Lac.
2. Middle socio-economic status will come under the salary in between 4-8 Lac per annum.
3. Lower socio-economic status will represent the salary in between 1-2 Lac per annum
4. The same sequence of test is followed for all the subjects of two groups (under and over achiever) to control sequence relevant variable.
5. Age ranged for all the subjects was in between 16 to 19 years.
6. The subjects taken from government as well as from private schools.
7. The overachiever and underachiever were selected on the basis of their past two years academic records in the schools, above 80% was treated as over achiever and below 40% were treated as under achiever. The extreme groups will be made on the basis of over and under academic achievement. The procedure administration and instruction were followed according to the responsible test manual.

3.6 SAMPLES:

For this research work, the Incidental-purposive sampling technique is used for the selection of the subjects. In all, there are 240 school students (it
includes 120 boys and 120 girls). 40 students belonging to higher, middle and lower socio-economic status of each gender group; and 20 over achievers and 20 underachievers in each gender and SES group. All the school students are in the age range of 16 to 19 years and studying in the secondary and higher secondary schools of Aurangabad city. All the psychological tests in form of self-report inventories are administered to the students individually or in the group situation in their classes according the availability of the students. In all there are 12 subgroups, each consists of 20 subjects and the entire sample is composed of 240 subjects the procedure is followed according to the test manuals. In all there were eight subgroups and each consist of twenty subjects and entire samples were consists of 240 subjects.
3.7 TESTS

In the present research study the main variables are self concept, intelligence, adjustment and under & over achiever. Therefore the important task before the investigator is that of selection of appropriate tests or instruments to be used to elicit the desired information in each area. The following inventories are used in the present research work:

1. **Self-concept Inventory**

To measure Self-concept among children Self-concept Questionnaire by **Saraswat & Gaur (1984)** was used.

Self-concept is a dominant element in personality pattern, therefore, the measurement of self-concept becomes essential. A variety of methods and techniques have been developed to measure self-concept. The problem of measuring the self-concept to a large extent still remains unsolved. The difficulty in conducting research in such an area is that the concept of self is not very well defined and is in a state of flux. There are several terms that are virtually synonymous with self-concept among them are "Self-image", the "Ego", "Self-understanding", "Self perception" and "Phenomenal Self".

Self-concept has been referred by **Lowe (1961)** as one's attitude towards self, and by, **Paderson (1965)** as an organized configuration, of perceptions, beliefs, feelings, attitudes and values which the individual views
Rogers (1951) defined self-concept as "An organized configuration of perceptions of the self which are admissible to awareness. It is compared of such elements as the perceptions of one's characteristics and abilities, the percepts and concepts of the self in relation to others and to the environment, the value qualities which are perceived as associated with experiences and objects, and the goals and ideals which are perceived as having positive or negative valence. Saraswat and Gaur (1984) described self-concept as "The self-concept is the individual's way of looking at himself. It also signifies his way of thinking, feeling and behaving".

William Fitt's suggestion that attention should be shifted from global measures of the self-concept to configurations of responses across self-concept dimensions. Such configurationally patterns should be mere sensitive to environmental effects.

The self-concept inventory provides six separate dimensions of self-concept, viz, Physical, Social, Intellectual, Moral, Educational and Temperamental Self-concept. It also gives a total self-concept score. The operational definitions of self-concept dimensions measured by this inventory are:

1. Physical: Individuals' view of their body, health, physical appearance and strength.

3. Temperamental: Individuals view of their prevailing emotional state or predominance of a particular kind of emotional reaction.


5. Moral: Individual's estimation of their moral worth; right and wrong activities.


This is a self-concept inventory. There are 48 items in it. Against each item there are five responses. You have to read each item carefully and respond to it by marking a tick (√) on any one of the five responses given against that item, which you think describe you well. There is no right or wrong answer. The right answer is only what you feel about yourself. Try to give your responses according to what you feel about yourself with reference to that a statement. Your answers will be kept confidential.

After the above instructions, administrator is explained with the help of example given on the inventory.

The respondent is provided with five alternatives to give his responses ranging from most acceptable to least acceptable description of his self-
concept. The alternatives or responses are arranged in such a way that the scoring system for all the items will remain the same, i.e., 5, 4, 3, 2, 1 whether the items are positive or negative. If the respondent put tick (√) mark for first alternative the score is 5, for second alternative the score is 4, for third alternative score is 3, for the fourth it is 2 and for the fifth and last alternative the score is one. The summated score of all the forty-eight items provide the total self-concept score of an individual. A high score on this inventory indicates a higher self-concept, while a low score shows low self-concept. Transfer the score of each item on the front page against that item. Now add all the scores of eight items given in that column, this will give you score for that particular dimension of self-concept. Reliability of the inventory was found by test-retest method and it was found to be .91 for the total self-concept measure. Reliability coefficients of its various dimensions vary from .67 to .88.

2. Raven’s Progressive Matrices: (Raven 1960)

Progressive matrices (1938) was constructed on the a prior assumption that if Spearman’s principles of associations were correct, it should provide a test suitable for comparing people with respect to their immediate capacities for observation and clear thinking.

The standard progressive matrices A, B, C, D and E is a test of a person’s capacity at the time of the test to apprehend meaningless figures
presented for his observation, see the relations between them conceive the
nature of the figure completing each system of relations presented and by
doing so, develop a systematic method of reasoning.

The scale consists of 60 problems divided into five sets of 12. In each
set the first problem is as nearly as possible self evident. The problems which
follow become progressing more difficult. The order of the tests provides the
standard training in the method of working. The five sets provide five
opportunities for grasping the method and five progressive assessments of a
person’s capacity for intellectual activity. The scale is intended to cover the
whole range of intellectual development from the time a child is able to grasp
the idea of finding a missing piece to complete a pattern and to be sufficiently
long to assess a person’s maximum capacity to form comparisons and reason
by analogy without being unduly exhausting or unwieldy. The scores
obtained by adults tend to cluster in the upper half of the scale, but there are
enough difficult problems to differentiate satisfactory between them.

The high re-test reliability of the Mill Hill Vocabulary Scale reflect the
fact that people normally recall information without difficulty once it has
been acquired. The lower re-test reliability of the Matrices Test reflects the
fact that the output of intellectual activity tends to fluctuate more with age. In
general, the re-test reliability and the Interco - relations between the Matrices
and Vocabulary tests tend to be lowest of all with very young children and
very old people. If ranges 0.44 to 0.93
3. **Adjustment Inventory: Sinha & Singh (1982)**

To measure the adjustment of the student Sinha & Singh (1982) adjustment inventory was used. The adjustment inventory has been designed for use with Hindi knowing school students of India. The inventory seeks to segregate well adjusted secondary school students (age group 14 to 18 years) from poorly adjusted students in three areas of adjustment: Emotional, Social and Educational.

This test consists of sixty items related to three areas of adjustment. The questions were to be answered in ‘Yes’ or ‘No.’

Coefficient of reliability was determined by (i) split-half method (ii) Test-retest method, and (iii) K-R formula-20. It gives reliability coefficients of the total test and sub-tests by the difference methods. It ranges from .90 to .96.

In item-analysis validity coefficients were determined for item by biserial correlation method and only such items (were retained which yielded biserial correlation with both the criteria (i) to score and (ii) area score, significant level being .001.