METHODOLOGY

The present study will be undertaken with a view to investigate the relationship among variables for the purpose of explaining a current state and predicting future occurrences.

In a scientific inquiry, after defining the problem and formulation of the hypothesis on the basis of literature, the next legitimate sequential order the researcher could follow is “data collection”. The detailed methodology of research design and data collection has been presented in this sub-head.

Research Design:

The accuracy in results and quality of research findings depend mainly upon the research design. Research methodologists like Edwards (1968), winner (1971), Kerlinger (1978) and many others considered research design as a controlled mechanism ruled by the principle of “Max con Min”. The ‘Max’ explains the investigator to go for maximization of systematic variance’, whereas the ‘con’ explains to exercise the control over unwanted variable and ‘min’ give an understanding to minimize error variables so as to ensure disciplined data that contribute to a sound generalizations. While verifying research hypothesis a property designed research tells what to do and what not and indicate the steps to be taken in sequential manner for collecting the empirical data.

Selecting a proper research design and justifying its relevance, the present research further moved for its implication with a view to testing the hypothesis.

Present investigation is a relational study that considers the principles of basic research. The relationship of physical fitness and motor fitness components with mental health, socioeconomic status and academic achievement will be established.

The subject, Sample and Population:

It has been stated earlier that the primary purpose of the research is to discover principles that have universal application. Therefore, arriving at sound inferences and findings, known as generalizations applicable to the populations, has become a target in this scientific enquiry.

The major task in a sampling is to select a sample from the defined population by an appropriate technique that ensures that sample is representative of the population and as far as possible not based in any way. Sample must be adequately large in size so that power of
generalization of the findings seems to be high and accurate in estimating the properties of the population.

Considering these points, stratified random sampling techniques has been employed and the sample size has been targeted in this investigation only regular students of University intervarsity competition of different games and sports having ages between 18 to 25 years are the subjects of this investigation.

All five hundred and nine intervarsity players of Dr. Babasaheb Ambedkar Marathwada University, Aurangabad players are selected samples for this study.

**Sources of Data:**

The data will be collected on 509 subjects by administering the selected Physical Fitness components tests and Motor fitness components tests, Mental Health Inventory, Socioeconomic Status Inventory and final marks for Academic Achievement.

According to the weekly timetable of the sample colleges, the schedule of data collection will be planned in such a way so that it did not disturb the day to day routine work of the college. For smooth data collection, the investigator will check out either the evening sports practice session or morning physical education and fitness program session for two days in a week for each college. Thus, the researches could cover two colleges in one week for complete data collection. Considering this schedule of data collection the investigator will be planning a 14 week schedule for the total 28 sample colleges. Data collection will be started from March 2010 to March 2011 after getting permission from the principals’ form each of the selected colleges.

However, the schedules of the data collection will be planned as below:

1. A date-wise planning for data collection and testing-berth will be prepared for each college separately and issued to college authorities well in advance so that selected subject could participate in all events of the testing programme.

2. A day out date wise planning with time and testing berths will be prepared for each colleges and issued to college authorities and selected subjects a week beatnik, it helps to participate all subjects in the testing programme.

3. The day-wise programme for data collection will be mostly same for every college. Prior to the date of actual data collection, the subjects will be informed to come with proper dress for exercise and they must bring a pen or pencil for paper-pencil test.
4. In the next morning 7:15 a.m. the subjects will be assembled, where proper introduction about testing programs will be given with a view to get systematic cooperation maximally from the subjects during data collections.

5. From 7.30 a.m. to 8.3a.m.: The subjects will be instructed to go for paper-pencil test, where the selected questionnaires were administered.

6. After completion of paper-pencil test, the subjects will be directed to approach the technical assistants for participating in each field events of Health-Related Physical Fitness Test. This also includes other associated test viz. height, body weight, and hand grip.

**Statistical Techniques:**

Applying descriptive statistical the data will be processed primarily. Further, test-retest reliability and split-half reliability coefficients will be calculated whenever deemed necessary.

Before the actual administration of the test the subjects will be given an opportunity to participate in each of the test items, on trial basis, if desired by the participants, so that they will be well acquainted with the testing procedures.