Chapter-III

PROCEDURE AND METHODOLOGY
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Research is an endless quest for knowledge and an unending search for truth. It brings to light new knowledge or correct previous errors and misconceptions and adds information 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 the more formal, scientific 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 or conclusions (J.W. Best).

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

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 means concerning to an inquiry or research study constituted a research design. It (design) is the heart of any research. Research design is a plan, which enables one to reason from observed arrangement of conditions and observation in such a way that alternative answers to the questions taken up in the research are ruled out. It contains a system of checks against all factors that affect the validity of the research outcome. A research design is the conceptual structure within which research is conducted. It constitutes the blue print for the collection, measurement and analysis of data. As such, the design includes an outline of what the researcher will do from writing the hypotheses and its operational implications to the final analysis of data. Research
design is needed because it facilitates the smooth sailing of various forms of research project. Research design stands for advanced planning of the methods to be adopted for collecting the relevant data and the techniques to be used in their analysis, keeping in view the objectives of research and the availability of staff, time and money. A good research design is often characterized by objectives like flexibility, appropriateness, efficiency, economy and so on. Generally, the design which minimizes bias and maximizes the reliability of the data collected and analyzed is considered a good design. The design which gives the smallest experimented error is supposed to be the best design in many investigations. Similarly, a design which yields maximal information’s and provides an opportunity for considering many different aspects of 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 or objective 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 waste in one respect or the other in the context of some other research problem. Hence, a suitable design is to be developed for each study.

The following aspects have been discussed here-under in detail which are concerned with the design of the present study. The research procedure includes the method of research. The selection of the sample includes the sampling techniques. The selection of tool includes the selection of tool to collect the data for the present study. It consists of the procedures and techniques for conducting a study. The following are the sequence procedures and methodology for the present study.

- Population
- Sampling
- Tools used in date collection
- Statistical tools used

**Population**

The term 'population' is a technical term which indicates a large group having the essential elements needed for the purpose of investigation. For the
purpose of this study the population will consist of the lower educational institutes, of rural and urban areas of five districts, higher educational institutes, technical experts and peer group. It is to cover the rural and urban areas of five districts of Haryana. The population being large in number and vastly distributed so it is difficult to contact the whole population within limited resources of time and money. So only small but representative samples could furnish the details. The most simple technique was used. The samples for the study were selected in three stages. In the first stage, the investigator collect the list of senior secondary schools from the five districts with the help of district education officers.

In the second stage, the selection of school was made according to availability of data and suitability of convinience. In the third stage the students were picked up from the selected schools. Female students of rural and urban areas studying in senior secondary school, female students of higher educational institute i.e. affiliated colleges of M.D.U. and university students from various hostels of M.D.U and technical experts i.e. physical education teachers, coaches, lecturers in physical education constitute the population of this study.

**Sampling**

Keeping in view the time and financial strategy researcher has chosen 800 samples. Breakup and categories of the subjects are as under:
Figure - 3.1
Selected Districts of Haryana for Sampling Purpose
Figure - 3.2

Distribution of Student (500) Respondents from Five District at Senior Secondary School Level

Five Districts

- Jhajjar (100 Respondents)
- Rewari (100 Respondents)
- Mewat (100 Respondents)
- Gurgaon (100 Respondents)
- Faridabad (100 Respondents)

Rural

- Jhajjar (50)
- Rewari (50)
- Mewat (50)
- Gurgaon (50)
- Faridabad (50)

Urban

- Jhajjar (50)
- Rewari (50)
- Mewat (50)
- Gurgaon (50)
- Faridabad (50)

800 Respondents

- (500 Respondents) Lower Educational Institutes (Senior Secondary School) of Five Districts
- (200 Respondents) Higher Educational Institutes i.e. M.D.U., Department Students Affiliated Colleges (M.D.U., Rohtak)
- (100 Respondents) Technical Experts i.e., PET, Coaches, Lecturer in Physical Education

Rural (250)

- University Students (100)
- Physical Education Profession (25)
- General/Peer Group (75)

Urban (250)

- Affiliated College Students (100)
- Physical Education Profession (25)
- General/Peer Group (75)

P.E.T. of Schools (50)

- Coaches and Lecturers in Physical Education (50)
Tools Used in Data Collection

Questionnaire

Questionnaire is one of the most extensively used data gathering technique with researchers engaged in descriptive studies. It is a set of questionnaire, logically arranged in sequence and used when functioned information in needed.

Structured questionnaire was used in data collection. The questionnaire was prepared with great care in consultation with the supervisor, colleagues, experts and the research scholars also by going through the literature on the subject. The questionnaire was also circulated among different fields of specialized experts such as social sciences, Psychology and journalist etc. for their valuable suggestions. The questionnaire was prepared in English.

Pilot study was made by collecting data from 35 female students in physical education and sports at higher education level. The results of this pilot study were analyzed and got evaluated from the experts. Their valuable suggestions for improvement in questionnaire were incorporated. Before circulating the questionnaire to the actual subjects, the reliability of the questionnaire was determined. The co-relation between the filled and refilled questionnaire was applied to establish the reliability of each questions including total questions. The reliability co-efficient between each question were find between 0.74 to 0.87 which were found highly significant. The reliability co-efficient of over all questionnaire was find to be 0.78 which was also found to be highly significant. Accordingly the necessary changes were made in the questionnaire and it was finalized after the approval of the supervisor. The finalized questionnaire was used to collect the data from the respondents i.e. the population of the study.

The structured questionnaire, which was specially prepared for the study purpose was used to collect the data. The scholar personally visited all the respondents at their home, school, inter-collegiate tournaments of M.D.U., Department of Physical Education and girl hostels of M.D.U., Rohtak. Before filling up the questionnaire, the objectives of the study were clearly explained to them. So as to avoid any misunderstanding in the minds of respondents. The respondents were explained about the importance of the study and hence requested to provide correct
information as far as possible. In addition to this, the scholar personally interacted with P.E.T., L.P.E. and Head/concerned secondary data.

The data regarding the interest of girls for physical education of different areas, secondary information were also gathered from university physical education department and other sources.

**Statistical Tools Used**

In order to make the analytical and interpretation part of data more rational and scientific, some statistical tools are used for this propose the tools like percentage in decimal and numerical form. The response of each question are placed in tabular and pictorial form by drawing histogram for number of yes or not and pie graph for total percentage of respondents are undertaken. Otherwise also, it would be easy to extract the finding with the help of such tools through computer or Internet.

The word percent is an abbreviation of Latin phrase 'per centum' which means per hundred. Thus the term percent means per hundred or for every hundred.

When we say a boy scored 80 percent marks in his final examination means that he obtained 80 marks out of every hundred marks.

The term percent is sometime abbreviate as P.C. The symbol percent is often used for the term. This 80 percent will be written as 80% percentage as fraction.

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\frac{80}{100} = \frac{80 \times 1}{100} = 80 \text{ prepared } 80\%
\]

**Analysis and Interpretation of Data**

Data collected from all 800 respondents was compiled. Since the study is descriptive one. The scholar has analyzed data of all the respondents question wise. The number and percentage of respondents who gave their opinions in yes or no about each question and (√) the questions selected to social profile were counted. By doing so the researcher is able to get overall responses of the respondents about a particular question. After this corresponding conclusions are drawn. The questionnaire has five parts viz. questions on social profile, facilities and infrastructure available, general conditions, society's outlook, some ethics, religion,
custom's traditions, Burden of domestic chores, attitude of women parents physical education and principal.

The responses of questions have been placed in tabular and pictorial form by drawing histogram and pie graphs.

**Chapterization Scheme**

Conclusion and findings are drawn accordingly chapterization scheme. The thesis has been divided into five chapters. The first chapter is in the nature of introduction. It includes history of physical education, meaning of physical education’s objectives of physical education, physical education in India, Haryana, definitions of technical terms, statement of problem, significance of study, objectives, hypothesis, limitations and delimitation of the study.

In second chapter, a brief review of related literature has been presented.

Third chapter deals with population, sample, tools used, meaning of percentage, statistical techniques and chapterization scheme.

Fourth chapter deals with the results and discussion. It also brings out the attitude of women, parents, educationists towards this profession and highlights the existing facilities for physical education.

Fifth chapter deals with summary, suggestions for further studies and conclusions of the study.

The last chapter deals with bibliography and appendices.

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