CHAPTER III
METHODOLOGY

In this chapter the selection of subjects, methods used for collection of data, construction and administration of the questionnaire and statistical techniques used are discussed.

Selection of Subjects

Sample for the athletes include students who represented their concerned University in different sports and games. For the purpose of the study the data was collected from various teams, such as athletics, football, Volleyball, Basketball and Handball and total number of athletes was 253. The above players were from different Universities in Kerala both boys and girls.

The coaches for the study were taken from those coaches who are working under Kerala Sports Council and Sports Authority of India and they were from different disciplines such as Football, Volleyball, Athletics, Basketball and Hockey and total number was 79. Physical Education teachers includes Physical Education teachers who are working in different Colleges affiliated to different Universities such as Kannur University, Kerala University, Calicut University and, Mahathma Gandhi University. For the
purpose of the study 271 physical education teachers from above said Universities were taken.

**Methods used for Collection of Data**

The data for the study were collected using questionnaires.

**Construction of Questionnaire**

There were two types of questionnaires. The questionnaire type I was for the Physical Education Teachers working in colleges and coaches working under Kerala Sports Council and Sports Authority of India to assess their knowledge about nutrition. The questionnaire type II was for the athletes.

The questionnaires were framed and constructed under the supervision of the guide and experts in the field of Physical Education and nutrition with at most care, taking into consideration the maximum coverage of the areas of the nutrition concerned with a relevant aspects needed for the study, so as to get maximum worthwhile and meaningful responses from the subjects. In order to get the nutritious knowledge, four different areas of nutrition were selected such as dietetic constituents, nutritional deficiency disorders, sports related nutrition and nutritional value of food.

The construction and arrangement of the questionnaires were made in such a logical way, so that the respondent will able to answer in an orderly manner. Attempts were made to make the questions simple, clear and
relevant, leading no room for ambiguity and vagueness. The answers of the questions were asked in one word and separate space was given in question paper itself and at most care was taken to frame the questionnaires according to the specification given by the experts.

**Questionnaire Development**

The following steps were adopted for the development of the questionnaire.

In the first step various questions, in all the two types of the questionnaires were framed. Afterwards several changes were made according to the recommendation of the guide and other experts who had specialized in the field of Physical Education and nutrition and the draft was finalized with 50 questions in type I and 40 questions in type II.

**Trial Run**

The questions were arranged in proper order. The questionnaires were administered by selecting ten Physical Education Teachers working in Colleges under different Universities in Kerala. The researcher went to the Colleges and after getting the permission from the principal the researcher administered the type I questionnaires with the Physical Education teachers. Also the type I questionnaire were administered among five coaches working
under Kerala Sports council and five under Sports Authority of India who have specialized in different disciplines.

Type II questionnaires were administered among ten men and ten women athletes who have represented their University for Inter University competitions in different disciplines.

After one month the same process of trial run was administered with the same respondents and found that the scores were consistent and hence questionnaires were reliable. It was further discovered that questionnaire were clear and the questions were adequate to obtain the information desired and validity of the test also was proved.

**Rewriting**

On the basis of the feedback from the respondents and on critical evaluation necessary changes were made in the questionnaire and it was finalized.

**Administration of the Questionnaire**

The investigator went and met all the Physical Education Directors of various Universities in Kerala with the introduction letter from the guide and got permission to administer the questionnaires during the annual meeting of physical education teachers concerned; where almost all the Physical Education teachers come in one stage. At the end of the meeting, the
investigator could able to explain to the teachers the need and importance of his visit and distributed the type I questionnaire among them. The teachers were also given reasonable time for filling the questionnaires. Their seating was arranged in such a manner that they could write the answers without discussions. Also the investigator could administer the type I questionnaire during refresher courses and personal visit to different colleges in Kerala.

In order to administer the type I questionnaire among the coaches working under Sports Authority of India the investigator visited various SAI regional centers in Kerala with the introduction letter from the guide. With the previous permission of the regional directors of SAI centres, the investigator met all the coaches together and administered the questionnaire.

Type I questionnaire for the coaches working under Kerala Sports Council were administered during refresher courses for the coaches held at Trivandrum with the previous permission from Sports Council President. In addition to that the investigator visited some of the coaches at their working centres to get the questionnaires filled.

For the administration of Type II questionnaire the investigator visited various places where University coaching camps were going on. After getting permission from the coaches the investigator assembled the athletes in a class for administrating the type II questionnaire. The athletes were directed to answer all questions. The questions were read by the investigator and
explained if necessary and given reasonable time to fill up the questionnaire. Assurance was given to the students that answers in the questionnaires would be used only for the research purpose.

**Scoring**

Each right answers were given two marks in type I questionnaire and two and half marks were for the right answers in type II questionnaire.

**Statistical Technique**

The data which was collected from the subjects were treated statistically. F ratio was used for the intra-group comparisons of athletes, coaches and Physical Education teachers and Scheffe's Post-hoc test was used when the F ratio was found significant. Descriptive statistics was also used to analyze the nutritional knowledge status of various groups.