Chapter III

PROCEDURE

In this chapter, the sampling technique, steps adopted in constructing the questionnaire and its administration to subjects, aids to responses, methods used for collecting data, and the analytical methods are described.

The study comprised of evaluation of physical education programmes of boys' and co-educational high and higher secondary schools in the North Eastern Zone of India. The North Eastern Zone consists of seven States, namely, Assam, Arunachal Pradesh, Mizoram, Manipur, Meghalaya, Nagaland and Tripura.

All the schools covered in the study are recognised and are being run by the Government, Local bodies and Private managements. Some of the private schools are aided and some unaided. The names of the schools and their addresses were collected from the following sources.

° Directorate of Education (Statistical Wing).
° Board of Schools and Secondary Education.
° The Directorate of Public Instruction.

To obtain a truly representative sample of schools, stratified random sampling technique was used drawing fifty per cent schools from each district of each state of the North Eastern Zone of India. Thus, the sample comprised of a total of 630 schools
from Assam, 36 schools from Arunachal Pradesh, 17 schools from Mizoram, 120 schools from Manipur, 103 schools from Meghalaya, 64 schools from Nagaland and 118 schools from Tripura. The total number of schools in each state, the number of schools to whom Questionnaire were sent, the number of schools which responded and the percent returned are presented in Table 1.

**TABLE 1**

TOTAL NUMBER OF BOYS' AND CO-EDUCATIONAL HIGH AND HIGHER SECONDARY SCHOOLS IN THE NORTH EASTERN ZONE OF INDIA

<table>
<thead>
<tr>
<th>States</th>
<th>Total number of High and Higher Secondary Schools.</th>
<th>Questionnaire Sent to the Schools.</th>
<th>Responses Received</th>
<th>Percentage of responses.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assam</td>
<td>1563</td>
<td>781</td>
<td>630</td>
<td>85.02%</td>
</tr>
<tr>
<td>Arunachal</td>
<td>87</td>
<td>51</td>
<td>36</td>
<td>70.59%</td>
</tr>
<tr>
<td>Mizoram</td>
<td>42</td>
<td>22</td>
<td>17</td>
<td>77.27%</td>
</tr>
<tr>
<td>Manipur</td>
<td>301</td>
<td>155</td>
<td>120</td>
<td>77.41%</td>
</tr>
<tr>
<td>Meghalaya</td>
<td>243</td>
<td>123</td>
<td>103</td>
<td>83.73%</td>
</tr>
<tr>
<td>Nagaland</td>
<td>151</td>
<td>77</td>
<td>64</td>
<td>83.11%</td>
</tr>
<tr>
<td>Tripura</td>
<td>347</td>
<td>174</td>
<td>118</td>
<td>67.81%</td>
</tr>
</tbody>
</table>
Construction of the Questionnaire

The questionnaire was prepared with great care in consultation with the guide, other experts in the field, and colleagues of the research scholar. Guidelines for developing the questionnaire were obtained from selected books.\textsuperscript{1,2}

The research scholar also put his best efforts in setting up the questionnaire in different state languages besides English so that the terminology which was used in the questionnaire would be easily understood by the respondents. Not merely that, during the personal interviews and observation schedules kept in the schools, some respondents were given questionnaires in the state language which helped the scholar to obtain better responses. The different languages into which the questionnaire was translated were as follows:

\begin{itemize}
  \item Manipuri for the State of Manipur
  \item Nagamis for the State of Nagaland
  \item Assamis for the State of Assam and Arunachal Pradesh
  \item Kokhbarak (Tripuri) for the State of Tripura
  \item Khasi (Mehgalayees) for the State of Meghalaya
  \item Mizo for the State of Mizoram.
\end{itemize}


A copy of each questionnaire in different state languages (translated from English) is given in Appendices. The important areas in Physical Education Programmes for boys' and co-educational high and higher secondary schools were identified in terms of Indian conditions so that a detailed study could be made. The questions were short, clear, direct and simple and out of 64 initial questions that were prepared for head-masters, 33 were finally included in the questionnaire after a lot of modifications incorporating many of the suggestions received.

The questionnaire contained six sections (as given below) in which different questions were set accordingly. A sample of the questionnaire is shown in Appendix B2.

- Relationship of Physical Education Programme to the total education programme.

- Fiscal management of the physical education programme.

- Relationship of physical education programme to the community.

- Available facilities for physical education.

- Administration of the physical education programme.

- The curriculum in the physical education programme.

The questions were arranged in logical order and each question was worded clearly to receive desired responses without
creating any undue problem for the respondents. The responses to the questionnaire were either **No** or **Yes** circling the number 1 or 7 respectively in the (1 - 7) rating scale laid down to the right of each statement. If any statement was found which did not have either of the responses i.e. **No** or **Yes** and the respondents felt that the statement was in mixed form, he/she could decide the possible answer for it within 2 to 6 in ascending order as to which one should be circled to the best of his/her knowledge of that area.

It was also mentioned that there may be statements that do not apply to the respondents' situation or demand information not available to him/her, in such cases they were asked simply to omit responding to those items. In addition to comprehensive instructions, the research scholar gave an example as to how the questionnaire was to be answered.

**Development of the Questionnaire**

The following procedure was adopted for developing the questionnaire.

**Initial Writing**

In the first attempt, various questions which required several responses were formulated and afterwards they were changed from time to time according to the recommendations of the guide
before final draft was made.

**Trial Run**

After having formulated the questionnaire to the satisfaction of the research scholar with the inclusion of all essential items in an organised manner, the next step was implemented for trial run. The purpose of the trial run was to discover whether the meaning of all the statements given in the questionnaire was clear and adequate to obtain the desired information. During the trial run, initial 64 questions in the questionnaire were given to the physical education teachers, head-masters and experts in the field of physical education. They were requested to critically evaluate and answer them and return them with suggestions, if any, so that questions prepared would be clear and straightforward having no ambiguity.

**Rewriting**

On the basis of the received suggestions and information laid down by the respondents, necessary changes were made in the construction of the questionnaire and finally it was formulated after the approval of the guide.
Administration of the Questionnaire

The copies of the questionnaire with covering letter and self addressed stamped envelope were mailed to the concerned head-masters of schools in each state.

Aids to Responses

- A self-addressed stamped envelope was enclosed along-with the questionnaire.

- The respondents were assured that all information would be kept confidential.

- The questionnaire was sent at a time when the subjects would not normally be very busy.

- A follow-up was made by mailing post-cards to the subjects after two weeks and again after four weeks of sending the questionnaire requesting them to return the same filled in.

Observation Schedule

To make the data collection reliable and useful the investigator personally visited a few schools in each state of the North Eastern Zone of India to have personal observation pertaining to the school physical education programme i.e., attitude towards physical education, provision of intramural competition, facilities, equipments, budgeting resources expenditure and interest of the community towards physical education. It was also notified whether
qualified teachers were available in the concerned schools. The visit was intentionally made without prior appointment so that the investigator could assess the real situation in the said area. During the visit in all the States, certificates were awarded to research scholar by the different institutions, Heads of the Departments which are given in Appendix D.

Personal Interview

The investigator interviewed quite a number of head-masters/Principals, Physical Education Teachers, Joint Deputy Directors/Assistant Directors/Special Officers of concerned States and obtained available information regarding many aspects which otherwise would have been difficult to obtain.

The Principals/Head-masters being executive heads and policy makers in their respective institutions, answered many questions and explained certain difficulties which might not have been answered by way of questionnaire.

All data collected through questionnaires, observation schedule (observation) and personal interview was recorded systematically.

Statistical Treatment of Data

The data, comprising of scores for each state in each section of the questionnaire were analyzed by converting raw
scores into percentages. These percentages were then analyzed to obtain a clear understanding of the physical education programme in each state.

In addition, the weighted scores in each section of the questionnaire for the seven States were subjected to ANOVA to find differences, if any, among the States in terms of Physical Education Programmes for High and Higher Secondary Schools; weighted scores were used because the number of schools in the seven States were quite different, ranging from 17 in Mizoram to 630 in Assam.