CHAPTER III

METHODOLOGY

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METHODOLOGY

Methodology of investigation is the core of every research work. The success of all research studies depends on the methodology adopted and the tools and techniques employed.

"The aim of research is not to find a 'way out' or to take action on a problematic situation but to find a causal relation between observable and measurable factors which would explain the problem at hand" (Young, 1968).

Scientific research refers to a cycle of specified activities of man aimed at seeking knowledge of the subject matter. The scientific method has been regarded as the sine-qua-non of research. It is a term denoting the various processes by the aid of which all sciences are built up. The present study has been carried out by using the scientific method.

3.1 METHOD ADOPTED

In selecting and using the method, all the salient points were taken into account by the investigator and decided to adopt the Survey method of study.

Normative Survey Method

In solving a problem, one has to evaluate the present conditions and then seek information concerning 'what we may want and how to reach there'. Normative survey research may involve one or more of these
elements in different situations. It is concerned not with the characteristics of individuals but with the characteristics of the whole population. Survey method enables to collect data from relatively large number of subjects. Surveys are concerned with describing, recording, analysing and interpreting conditions that either exist or existed. It is usually appropriate in the case of social and behavioural sciences.

According to Sukhia (1974), "The survey method determines present trend and solves current practical problems". The survey is the type of research most widely used in educational research. "Educational surveys are particularly versatile and practical, especially for administrator, in that they identify present conditions and point to the present needs" (George, 1904).

The different types of surveys help to establish the status of the phenomenon under investigation. The purpose is to survey the present conditions, understand relationships and base future action on the findings. Surveys can be confined to fact-finding on large number of areas or they can be complex and sophisticated in design providing accurate findings. The use of survey method in the present study helped the researcher to collect adequate data from almost all the districts of Kerala.

3.2 TOOLS AND TECHNIQUES USED

Selection of suitable instruments or tools is also of vital importance in every research study. According to Best (1992), "Like the tools in the Carpenter's box, each research tool is appropriate in a given situation to
accomplish particular purpose”. For the purpose of the present study, it was decided to make use of certain important tools and techniques.

The main tools and technique employed were:

1. Personal Data Sheet
2. The Psycho-social Problem Scale-2000
3. Interview.

1. **Personal Data Sheet**

   The Investigator used personal data sheet to collect certain fundamental and personal information from the respondents only after expert scrutiny. It consisted of ten sections. The respondents were required to write their names and addresses in the space provided for the purpose and in the subsequent sections, there was only the need of putting a tick mark (✓) against the answer to which he agrees the most.

   The ten sections in the personal data sheet are as follows:

   1. Name of the respondent, (2) Class, (3) Address, (4) Sex, (5) Age, (6) Place of Birth, (7) Religion, (8) Educational Qualifications, (9) Details of parents and (10) Number of Family members. The personal Data sheet is given as Appendix I.

2. **The Psycho-Social Problem Scale-2000**

   This scale is prepared by the investigator with the kind cooperation of the supervising teacher for assessing the different psycho-social problems of orphans in comparison with the non-orphans.
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The different steps followed for the construction of this scale are discussed below:

Keeping in mind the major objectives of the study, the investigator prepared a plan for collecting preliminary data for the preparation of this tool. The investigator had gone through all the available books to have the clear picture of the psycho-social conditions of orphans.

The investigator visited the various orphanages and discussed with the orphans and wardens about the psycho-social problems they are facing today. The investigator was very careful in touching all the major areas of psycho-social problems of orphans. The Government officials, social workers, the administrative authorities of orphanages, local leaders, and educators were also contacted to elicit responses to the major aspects of the study.

The investigator went through the relevant literature such as research studies, the records of social welfare departments etc, the Encyclopaedia of Educational Research, Articles in the periodicals etc. for collecting facts for the study. The experienced members of the University Department of Education, leaders of philanthropic organisations were contacted and the investigator held discussions with them.

Before preparing items for the psycho-social problem scale, the investigator studied similar tools and also ensured the help of all available sources. The main areas to be included in the scale were decided first. The statements were formed within each area to obtain the required information.
The investigator took utmost care in avoiding ambiguous and indefinite statements.

Based on the preliminary information, the investigator conducted a pilot study. A separate scale was prepared containing more than 300 questions which consisted of psycho-social problems of orphans. The positive and negative statements were shuffled and the total number of questions were put under 15 different sections. The pilot study was conducted by using this tool from the inmates of few orphanages of Trivandrum and Quilon districts who were studying in the 8th, 9th, and 10th standards. A five-point scale was used. Statements which do not get correct responses were avoided.

After scoring, discriminating power for each question is calculated and questions having more discriminating power are included in the final scale. The scale, thus evolved was then subjected to expert criticism. Based on the suggestions of the experts, the draft form was modified and the final form was evolved. For assessing each problem, fifteen statements were selected and they are arranged under fifteen sections.

The various psycho-social problems assessed with the above mentioned scale are given below:

(1) Problems on Self-Esteem
(2) Problems on Recognition and Approval
(3) Problems on Love and Affection
(4) Problems on Security
(5) Problems on Independence
(6) Problems on Creative Expression
(7) Problems on New Experience
(8) Problems in dealing with others
(9) Problems on Achievement
(10) Problems on Isolation
(11) Financial problems
(12) Problems in dealing with opposite sex
(13) Problems in dealing with Authorities
(14) Problems in relation with Anxiety
(15) Problems in relation with Emotional Maturity.

For the positive statement the scores for A, B, C, D, and E are 5, 4, 3, 2, 1 and for negative statements the scores are reversed.

The final form of the psycho-social problem scale (Malayalam and English versions) are given as Appendices II and III.

**General Achievement**

For assessing the General Achievement of the students, the investigator used the marks obtained by them in the school examinations.

**Interview**

The interview is an important data collecting device which, the investigator used to collect information from the orphans in Kerala. According to Good and Scates (1954), “The interview is a major tool for gathering evidence in the field, including census and similar enumeration, social and economic status of families, standard of living, family budgets and family purchases and buying preferences”. Young (1956), points out that the
interview may be regarded as “systematic method by which a person enters more or less imaginatively into inner life of a comparative stranger”.

The personal interview is the only instrument by which significant past sections and future plans can be ascertained. The success of any interview depends on the competence of the interviewer and the readiness to respond, on the part of the interviewee.

The investigator prepared and used an Interview Schedule to collect data from the teachers and wardens who are dealing with the orphan students from the selected orphanages in Kerala. This part of the study was of great help for getting deep insight into the psycho-social problems of orphans in Kerala. A representative sample consisting of thirty teachers and thirty wardens from different schools were selected for this purpose.

The schedule used for the interview contains thirty questions for both teachers and wardens and the questions are closely related with the different variables of the present study and the psycho-social problems of the orphan children. A score of ‘one’ is given for a response showing psycho-social problem and ‘zero’ for response showing no psycho-social problem. After scoring, the collected data were properly tabulated.

Copy of the Interview schedule (Malayalam and English version) is given as Appendices IV and V.

3.3 SAMPLE OF THE STUDY

The target population from which the sample was drawn was the entire population of the orphans living in the orphanages of Kerala state who
receives grant from the Government. The approximate age range of this group being 13 to 17 and the standard of education is high school.

An optimum sample, states Parton (1959), "is one which fulfils the requirements of efficiency, representativeness, reliability and flexibility. The same should be small enough to avoid unnecessary expenses and large enough to avoid intolerable sampling error".

The researcher selected hundred and thirty five (135) orphan students, both boys and girls studying in high school standards from the different orphanages managed by various organisations in Kerala. The stratified sampling method was used to select the sample. Almost equal number of students from the major three communities—Christians, Hindus, and Muslims, of age group between 13 to 17—from both sexes were selected. List of orphanages from which data collected is given as Appendix VII.

Equal number (135) non-orphans as above, age group between 13 and 17, studying in the high school classes were also selected from different schools of Kerala for comparison.

The details of sample selected are given in the Table below
### Table 3.1
Break-up of the Sample Selected for the Study

<table>
<thead>
<tr>
<th>Group</th>
<th>Sex</th>
<th></th>
<th>Religion</th>
<th></th>
<th>Locale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
<td>Hindu</td>
<td>Christian</td>
<td>Muslim</td>
</tr>
<tr>
<td>Orphan</td>
<td>64</td>
<td>71</td>
<td>46</td>
<td>45</td>
<td>44</td>
</tr>
<tr>
<td>Non-orphan</td>
<td>64</td>
<td>71</td>
<td>43</td>
<td>45</td>
<td>47</td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td>142</td>
<td>89</td>
<td>90</td>
<td>91</td>
</tr>
</tbody>
</table>

#### 3.4 PROCEDURE OF DATA COLLECTION

The investigator visited almost all the districts of Kerala in order to collect relevant data from the few orphanages of each district by using stratified random sample technique. The same procedure was adopted to collect data from the non-orphan children.

After getting permission from the head of the institutions, the investigator introduced himself explained the purpose and gave instructions to the respondents, in addition to the indications given in the printed form. The researcher used several techniques and sincere effort to collect genuine data from the responds. It was collected in-group and there was calm and quiet atmosphere in the classrooms while making the response.

It is also to be noted here that all the respondents were very cooperative with the researcher when it was explained to them that this is a purely academic study and that the personal identity and other information will be held strictly confidential. The issue of becoming an orphan was always
delicate and often painful for the respondents to remember and relate. Therefore, the investigator had to spend considerable time with each respondent to establish a rapport and win their confidence in order to collect the relevant information.

The investigator personally contacted the teachers and wardens of orphans and requested their help to obtain a clear picture about the psycho-social problems of orphans. They co-operated well and gave a good picture about the problems of orphans.

3.5 THE STATISTICAL TECHNIQUES

The statistical techniques used in the present study for the analysis and interpretation of the collected data are the following:

(1) **Histogram**

This pictorial representation is used to assess the normality of the distribution of scores obtained. For this, the scores were marked on the horizontal axis and the frequencies on the vertical axis. Then rectangles are erected over each class whose heights are proportional to the frequencies.

(2) **Frequency Polygon**

This is also used to test the normality of the scores. Here the mid values of each class are marked on the horizontal axis (X-coordinate) and the frequencies on the vertical axis (Y-coordinate). After plotting the points, join them using line segments.
(3) Arithmetic Mean

This technique is used to compare two groups. The formula for calculating arithmetic mean is given below.

\[ AM = \frac{\sum fx}{N} \times \frac{\sum fx}{N} \]

Where \( \Sigma \) = Sum of

\( f \) = Frequency

\( X \) = Score

\( N \) = Total frequency

(4) Standard Deviation

This is used to find the dispersion of the scores and the formula is

\[ SD = \sqrt{\frac{\sum fx^2}{N} - \left(\frac{\sum fx}{N}\right)^2} \]

(5) t-Test

The 't-test' is the test of significance for measuring difference between the means of large samples that are used to compare two groups of students on different variables.

(6) Correlation

The word correlation means the closeness or relationship between two sets of variables. The single number which describes the extent of correlation is called the correlation coefficient, denoted by 'r'.

Verbal Interpretation of correlation:
According to Garret (1969), correlation coefficient 'r' can be interpreted as follows:

- *r* from \(0.00\) to \(\pm 0.20\) denotes indifferent or negligible relationship
- *r* from \(\pm 0.20\) to \(\pm 0.40\) denotes low correlation, present but slight
- *r* from \(\pm 0.40\) to \(\pm 0.70\) denotes substantial or marked relationship
- *r* from \(\pm 0.70\) to \(\pm 1.00\) denotes high to very high relationship.

(7) **Anova**

This technique is used to compare the means of more than two groups of samples, whether the difference is significant or not.