CHAPTER III

DESIGN OF THE STUDY
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Design of the Study

This chapter deals with the design of the study. It is divided into seven parts as follows:

3.1 Method of the study
3.2 Sample
3.3 Tool used
3.4 Description of the Questionnaire
3.5 Collection of Data
3.6 Scoring of Data
3.7 Statistical Techniques

3.1 Method of the Study

The descriptive survey method was employed in this investigation to study the issues relating to school administration as perceived by the school administrators of formal and non-formal institutions in Bangkok area, Thailand. Distinctively, advantageous method of the study was helpful to the discussion on various phenomena pertaining to school administration.

3.2 Sample

In the present study, the investigation was carried out on a sample of school administrators of formal and non-formal institutions at the secondary stage in Bangkok area,
Thailand. The total sample of the study was restricted to 360 school administrators i.e. 180 administrators from formal institutions and 180 administrators from non-formal institutions. These two groups of administrators were obtained through the stratified random sampling technique. Stratification was done on the basis of the division of Bangkok Metropolitan area into zones - North, South, East, West, and Central. Within each stratification, eighteen schools were randomly selected for the study. From each school, the principals and vice-principals were regarded as school administrators. Thus, from each zone 36 school administrators formed the formal group and an equal number formed the non-formal group of administrators. Table 3.1 reveals the zone wise sample structure.

**TABLE 3.1**

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Zone</th>
<th>Number of School Administrators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Formal</td>
</tr>
<tr>
<td>1.</td>
<td>North</td>
<td>36</td>
</tr>
<tr>
<td>2.</td>
<td>South</td>
<td>36</td>
</tr>
<tr>
<td>3.</td>
<td>East</td>
<td>36</td>
</tr>
<tr>
<td>4.</td>
<td>West</td>
<td>36</td>
</tr>
<tr>
<td>5.</td>
<td>Central</td>
<td>36</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>180</td>
</tr>
</tbody>
</table>
3.3 Tool Used

The selection of perfect and suitable tools is vitally important for successful research. Best (1963) has precisely remarked, "Each researcher is like a carpenter having a box of tools. As a carpenter, the researcher should select some of the tools from the box to use for his work, not all."

The tool used for the present study is questionnaire. It was constructed, improved and then employed by the investigator for rating the seriousness of administrative problems as perceived by the school administrators on a 5-point-scale.

Construction of Tool Used

After studying about philosophy, objectives, tasks and functions of the school administrators, the investigator arranged the items in the questionnaire pertaining to many areas of problems in school administration and then discussed with experts to have their opinions with regard to the most significant problems perceived by the school administrators. Based on that, the investigator decided to study the following 10 areas of problems: administrative personnel problems; teacher problems; student problems; instructional programme problems; curriculum problems; security problems; morale problems; supervision problems; school and community problems; and financial problems. The first set of 130 statements of
problems in 10 major areas was arranged, and then reviewed by 10 school administrators. On the basis of their report, 10 statements were dropped out.

The second draft of the questionnaire included 120 statements and was reviewed by 10 secondary school administrators from different institutions in Thailand. On the basis of their reaction, three statements were dropped out. After that the final questionnaire was prepared and then submitted to the six experts of the Department of Education, Panjab University for revision. The final draft of the questionnaire, thus developed, dealt with the ten major groups of problems mentioned earlier under this caption. It contained 117 statements divided into 10 major groups and each major group contained 16, 12, 10, 19, 9, 8, 10, 11, 9, and 13 items, respectively. The questionnaire has been given in Appendix 'A'.

Reliability

Reliability means the accuracy of measurement by a test. Mehrens (1976) says, "Reliability is typically defined as the degree of consistency between two measures of the same thing".

For the present study, the final draft of the questionnaire was administered to a sample of 50 school administrators in Thailand (25 school principals of formal institutions and 25 school principals of non-formal institutions). The statistical values of reliability were found out to be 0.904 and 0.900 by the Test-Retest Method for formal and non-formal school administrators respectively.
Validity

According to Best (1970) "Basic to the validity of a questionnaire is the right questions phrased in the least ambiguous way.... The panel of experts may rate the instrument in terms of how effectively it samples significant aspects of its purpose, providing estimates of content validity."

For the instrument used in the present study, the validity of the questionnaire was judged on the basis of the opinion of the experts in this area. The draft questionnaire was given to six experts from the Department of Education of Panjab University for their comments with regard to the purpose of the items in the light of the study in hand. Their suggestions were duly incorporated in the final draft.

3.4 Description of the Questionnaire

The questionnaire used for this study has been divided into 2 parts: The first part contains the biodata of the respondents and the second part contains the statements of school administrative problems to be rated by the 5-point-scale.

The 5-point-scale questionnaire used in the present study aimed at measuring the seriousness of administrative problems in the following major areas:

1. Administrative personnel problems
2. Teacher problems
3. Student problems
4. Instructional programme problems
5. Curriculum problems  
6. Security problems  
7. Morale problems  
8. Supervision problems  
9. School and community problems  

The distribution of the administrative problems on various groups in the final draft is as follows:

1. Administrative Personnel Problems:

   This major group has been sub-divided into four sub-groups which are given below:
   - Subject teachers (5 items)
   - Teachers or officers incharge of various services (3 items)
   - Recruitment, selection and transfer of teachers (4 items)
   - School relations with the Department of Central Education/Non-formal Education (4 items)

2. Teacher Problems:

   This major group of problems has been sub-divided into three sub-groups which are given below:
   - Responsibilities of the teachers (5 items)
   - Order and discipline of teachers (4 items)
   - Personnel improvement of the teachers (3 items)
3. Students Problems:

This major group of problems has been sub-divided into two sub-groups as under:
- Admission and enrolment (3 items)
- Responsibilities of the students (7 items)

4. Instructional Programme Problems:

Four sub-groups of the problems are arranged in this major group as detailed below:
- Equipment and teaching aids (7 items)
- Teaching procedure (4 items)
- Evaluation (4 items)
- Teacher and student relations (4 items)

5. Curriculum Problems:

Two sub-groups of problems have been arranged in this major group of problems as follows:
- Curriculum, text-books and teacher-handbooks (4 items)
- Extra curricular activities (5 items)

6. Security Problems:

This major group has been sub-divided into two sub-groups of problems as follows:
- Student security (3 items)
- Teacher security (5 items)

7. Morale Problems:

There are 10 items in this major group of problems.
8. **Supervision Problems**

There are 11 items in the major group of problems pertaining to supervision in school.

9. **School and Community Problems**

9 items are concluded in the major group of problems concerned with the relation between the school and community.

10. **Financial Problems**

There are 13 items in the major group of problems relating to school budget and mobilization of the school funds.

3.5 **Collection of Data**

In the present study the data have been collected from Thailand. A questionnaire was prepared and corrected in English and then translated into Thai language. All copies of the questionnaire were administered to the formal and non-formal school administrators, principals and vice-principals, the secondary stage in Bangkok area, Thailand by the investigator himself. On the basis of responses, the investigator was able to measure and examine the seriousness of problems of formal and non-formal school administrators by statistical techniques.

3.6 **Scoring of Data**

The scoring of data in the present study was very simple. All items in the questionnaire were positive and the level of scale was a number scale: 1, 2, 3, 4, and 5. The values
on the number scale were as follows:

1 = Not at all serious  
2 = A little serious  
3 = Moderately serious  
4 = Much serious  
5 = Extremely serious

3.7 **Statistical Techniques**

After collecting data, suitable statistical techniques were used for the organization and analysis of data. All raw scores had to be systematized and organized for worthwhile purpose. These consisted of the checking-up of the gathered data for accuracy and the dividing of information into different categories for use. The statistical methods used in the present study are:

1. Tabulation and frequency distribution
2. Measure of central tendency - the mean through the formula:
   
   \[ M = \frac{\sum X}{N} \]

3. Calculation of the standard deviation through the formula:
   
   \[ SD = \sqrt{\frac{\sum X^2}{N}} \]
4. Calculation of the standard error of mean \((SE_m)\) through the formula:

\[
SE_m = \frac{\sigma}{\sqrt{N}}
\]

5. Calculation of t-test through the formula:

\[
t = \frac{M_1 - M_2}{\sqrt{\frac{s_1^2}{N_1} + \frac{s_2^2}{N_2}}}
\]

To judge the rank order of the seriousness for each problem in a sub-group of every major group of problems, the mean of each item in the sub-group was compared with the mean of other problems under the same category. For comparison of the seriousness of problems, the test of difference between two means (t-ratio) was used.

The standard deviation was calculated to find out the dispersion of the responded opinions with respect to the perception of seriousness as perceived by the respondents.

To find out the fluctuation or flexibility of each mean, the standard error of the mean was calculated.

In deciding the seriousness of each problem on the basis of the criteria set by the investigator, the level
of seriousness of the problems was judged on the basis of the value of rank span of mean as follows:

<table>
<thead>
<tr>
<th>Mean Span of Rank</th>
<th>Degree of Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00 - 1.49</td>
<td>Not at all serious</td>
</tr>
<tr>
<td>1.50 - 2.49</td>
<td>A little serious</td>
</tr>
<tr>
<td>2.50 - 3.49</td>
<td>Moderately serious</td>
</tr>
<tr>
<td>3.50 - 4.49</td>
<td>Much serious</td>
</tr>
<tr>
<td>4.50 - 5.00</td>
<td>Extremely serious</td>
</tr>
</tbody>
</table>