CHAPTER VI

DESIGN OF THE STUDY
CHAPTER VI

DESIGN OF THE STUDY

6.1 Background

The researcher must not only present their results, they must also show how they produce them. They have to clearly mention the methods used by them along with their appropriateness to the nature of inquiry. In this connection, Whitehead et al. (1977) observe:

Although educational research is usually justified by an expectation that its results will be useful, researchers must not only present their results, they must also show how they produced them. What were the methods used and were they appropriate to the nature of the inquiry? How much weightage of interpretation can the research findings bear? These and similar questions need to be examined explicitly. (p.20)

The present study of the researcher mainly comes under Descriptive Research involving the procedure of induction, analysis, classification, enumeration on measurement. Such research is also popularly known as "Survey Normative, and Status Studies" which seeks together evidence relating to current conditions and also recommend steps for progress as well as the methods of reaching the goal of an improved state of affairs. Good (1963) has explicitly observed:

"With meticulous planning adequate survey data in the hands of an investigator of insight can be used for forward-looking purposes". (p.245)

Good (1963) also describes the main purposes of a Descriptive Research as follows:

1. To secure evidence concerning an existing situation or current condition.
2. To identify standards or norms with which to compare the present condition in order to plan the next step.

3. To determine how to take the next step (having determined where we are and where we wish to go). (p.244)

As such, "a descriptive study describes and interprets what is. It is concerned with conditions or relationships that exist, opinions that are held, processes that are going on, effects that are evident, or trends that are developing. It is primarily concerned with the present although it often considers past events and influences as they relate to current conditions". (Best 1982, p.93)

This type of descriptive research involves the collection and tabulation of data. It requires the interpretation of the meaning and significance of what is described and such description is invariably interwoven with analysis, comparison, contrast, interpretation and evaluation. It also leads to meaningful inferences and significant conclusions. That is why, the researcher finds the descriptive research useful for his present study under report.

As collection of data is most essential in the present study, the researcher found, "the survey method most essential. Because, the survey method gathers data from a relatively large number of cases at a particular time. It is not concerned with characteristics of individuals as individuals. It is concerned with the generalized statistics that result when data are abstracted from a number of individual cases. It is essentially cross-sectional." (Best, 1982, pp.94-95)

289
Merely a collection of data from a number of sources is not at all important. Similarly, the clerical routine work of gathering the tabulating figures is not also important. What is needed is a clearly defined problem and properly formulated objectives which require imaginative planning, careful analysis and interpretation of gathered data and logical reporting of the study.

6.2 The Sample

The primary purpose of research is to discover principles that have universal application; but it is quite difficult to study the whole population in order to arrive at generalisations. Some populations are too large to measure their characteristics. Even before the completion of the measurement, the population might have changed.

Therefore for, the practical convenience of everybody an examination of a small part of something as a guide to the quality of the whole, just like a farmer who looks into a handful of grain before he purchases, is essential. Even a scientist basically draws the sample in the same principle.

Whitehead et al. (1977) define a sample as under:

A sample is a number of things drawn from the whole population of those things, a subset of a set. The number of sample or subsets which can be drawn from any particular population or sets clearly depends on the number in the population or set; there are many possible samples containing a given number as there are possible combinations if that number which can be drawn from the total number in the population. (p.21)

Best (1982) gives a simpler definition of a sample and states:

A sample is a small proportion of population selected for observation and analysis. By observing the
characteristics of the sample, one can make certain inferences about the characteristics of the population from which it is drawn. (pp.E—r)

Besides, the researcher uses the collective past experience embodied in sampling theory. The theory essentially describes as to the amount of sample, principle of selection of it for a given level of likelihood of its characteristics which are reflection of the population. A population is any group of individuals that have one or more characteristics in common that are of interest to the researcher. The population may be all the individuals of a population type or a more restricted part of that group.

Contrary to some popular opinion, samples are not selected haphazardly. They are chosen randomly in a systematic way, so that chance or the operation of probability can be utilised. Besides, the concept of randomness has been treated as fundamental to scientific observation and research. It is based upon the assumption that while individual events cannot be predicted with accuracy, aggregate events can.

The theory clearly suggests in effect:

1. that if a sample is randomly selected, qualitative statement can be made about the probability of it being similar to the population.

2. that a large sample is, as a portion of the population, the more precisely this probability figure be given.

As such in a sampling context, a sample is drawn randomly when every member in that sample has been selected in such a way that every member of the population from which it
was drawn had an equal chance with every other member being selected.

Obviously before drawing a sample from the population, the researcher needs some kind of listing that population from which to work. This process is known as "sampling frame". According to Whitehead et al. (1977), "In any sampling exercise the first step is to find out the most suitable sampling frame suitable in terms of representing the target population and of being as far as possible up to date". (p.25)

As such, the researcher has drawn his sample on a scientific basis. The sampling procedures adopted for different purposes have been described as follows:

6.2.1 Extent of Utilisation of Moral Education in Primary Schools

The sample for ascertaining the extent of utilisation of moral education in primary schools of Orissa was drawn from 1000 primary schools of Orissa situated in the rural and urban, tribal and non-tribal areas of 13 districts of Orissa.

6.2.2 Interest of Children (8 - 11 yrs) in Moral Education

The sample for knowing interest of children in moral education was drawn from the schools situated in rural and urban, tribal and non-tribal areas of all the 13 districts of Orissa. Besides, the sample consists of 1000 children coming under the age group of 8 to 11.
6.3 The Tools and Techniques

The researcher found the questionnaire as a suitable instrument of data collection as it affords great facilities in collecting data from large, diverse and widely scattered groups of people. Sukhia et al. (1976) highlight the importance of questionnaire as an instrument of data collection in the following words:

The apparent ease of planning and using a questionnaire tend to make it appealing to novices in research. Often referred to as "the lazy man's way of gaining information", questionnaire is yet the most flexible of tools which possesses unique advantages over other kinds of tools in collecting both quantitative and qualitative information. (p.130)

All possible care was taken by the researcher for the preparation of a good questionnaire according to the following criteria enunciated by Whipp and quoted by Whitney (1961):

1. It should be within the comprehension of the respondents.
2. It should demand a minimal amount of writing.
3. It should be directed primarily to matters of a substantial fact and less often to matters of opinion.
4. It should elicit unequivocal replies, especially if these are later subjected to statistical treatment.
5. It should deal with matters worth investigating.
6. Although demanding only brief replies, it should stimulate supplementary communications for the recipients. (pp.132-133)

6.3.1 Extent of Utilization of Moral Education Questionnaire

The extent of utilization of moral education questionnaire was intended to collect data as regards the extent of
utilization of moral education in the primary schools of Orissa. The questionnaire was addressed to the headteachers of the primary schools. The questionnaire has been reproduced in Appendix I.

The important part of the questionnaire relates to the supposition of the researcher that schools obviously have a crucial role to play as regards extent of utilization of moral education. The maximum utilization of moral education depends on the schools activities such as morning assembly and co-curricular and curricular activities as well and use of mass media and library. In addition to these, special plans and programmes, training of teachers, adoption of alluring teaching technique, are of prime importance for utilization of moral education in the most desirable manner.

The constraints on the design of the school questionnaire were equivalent with the children's interest in moral education questionnaire. The items of the school questionnaire were prepared by the researcher and then shown to the Heads of primary schools. Inspecting officers and veteran professors of Education with a request to add some more items they think useful and exclude the items they do not consider to be useful. The questionnaire was sent to 30 persons (10 Headteachers + 10 Inspecting Officers + 10 Professors of Education) and all of them responded to the questionnaire. On receipt of their comments, the final items of the questionnaire were selected and then the final draft of the questionnaire was prepared.
The researcher also carried out some explicit investigation of the validity of the questionnaire on extent of utilization of moral education in schools by conducting a pilot study in 50 primary schools of Orissa. The heads of the institutions who filled in the questionnaire were interviewed after 15 to 30 days. After the interview, the researcher found that there was no significant difference in the filled-in questionnaire and in the results of the interview. As the correspondence between questionnaire answers and interview data were high, the researcher was confident about the validity and reliability of the tool.

6.3.1.1 Instruction for Administration

Extent of Utilization of Moral Education Questionnaire was intended to collect data from the heads of the primary schools.

(a) Instruction 1 was given for properly recording the response.

(b) Instruction 2 was meant for obtaining definite information.

(c) Instruction 3 provided an assurance to the respondents that their responses and all the information would be held strict confidence and that their answers in no way would enrich their status and security.
6.3.2 The Questionnaire on Children's Interest in Moral Education

The questionnaire on Children's Interest in Moral Education intended to know the children's inclination towards various aspects of moral education. The questionnaire has been reproduced in Appendix -- II.

The draft questionnaire was sent to headteachers, Inspecting Officers of Primary Schools and Veteran Professors of Education with a letter from the supervisor to verify the content validity of the questions and suggest for improvement. Almost all of them complied to the request. It was also heartening to note that some of them gave their suggestions according to which the final draft of the questionnaire was prepared by the researcher.

In the process of developing the questionnaire the researcher selected schools in the Dhenkanal Municipal area to test different items of the pilot study for which he drew a sample of 100 children from primary schools.

There is a set of logistics for construction of any kind of questionnaire, schedule or scale intended to collect information. The tasks of the instrument need precise definitions and these have then be tried out in operational terms until an appropriate level of confidence is reached about the validity and reliability of the instrument. Validity is the measure of how far an instrument is finding out what it is intended to find out.
The objectives of the questionnaire on children's interest in moral education were as under:

1. To know children's interest in moral education programme of the primary school.
2. To know the interest and choice of the children in various activities of moral education programme of the primary school.
3. To know the children's favourite mass media through which they want to acquire knowledge on moral education.
4. To identify their favourite library books for obtaining moral education.
5. To identify their favourite school subjects through which they may have moral education.

In turning these objectives into operational terms and combining them into a questionnaire, the researcher had to observe a number of constraints. He had to associate himself in collection of the data as far as possible. Data in large scale have to be coded by the researcher by means of a simple set of procedure as far as possible. The forms of the question and the format of the questionnaire were designed with this in mind.

The questionnaire was also prepared befitting to the age-group of 8-11. It was felt necessary that teachers should not be involved in explaining the questions in order to remove additional variability into administration
conditions. Evidence from the completed questionnaire suggested that it was comprehensible to most of the children in the age group of 8-11.

The researcher incorporated the whole range of questions in his prepilot questionnaire. These questions demonstrated one general point that there were too many questions which cannot be answered by most of the children within the given period. This factor led to the progressive reduction of the items of children's interest in moral education questionnaire.

The researcher also carried out some explicit investigation into the validity of the children's interest in moral education questionnaire. Only the practical validity criterion available to the researcher was the correspondence between children's answer to the questionnaire and the information derived from interviews with the children who had completed them. The children who had completed the trial questionnaire were interviewed after a period. They were asked the same questions as in the questionnaire. The correspondence between questionnaire answers and interviewed data were high which indicated that the final questionnaire discriminated well between children and represented their individual behaviour sufficiently to justify the weight the researcher should subsequently pace on the data. It is also worthy of mention that the follow up interviews conducted after the main survey also provided some validation evidence albeit post facto.
As such the evidence about the validity of the questionnaire also provided some indication of its reliability. In the two administrations of the test and retest procedure, there were very little variation in children's answers between the two administrations.

In conclusion the researcher was fully convinced after the total survey of the questionnaire that the children's questionnaire adequately did the job for which it was intended for.

6.3.2.1 Instruction for Administration

A number of instructions were given in the tool which have been discussed as follows:

(a) Instruction 1 and Instruction 2 were to motivate the children for filling in the questionnaire. It was mentioned that their opinion was required only for better provision of moral theme and constructive activities on moral education in the schools.

(b) Instruction 3 was to help children to answer the questions after proper understanding. In case they do not understand any question, they had to take the help of the teacher.

(c) Instruction 4 was to motivate children to give their free opinion with an assurance that their opinion shall be kept strictly confidential. It was further indicated that the answer of the questionnaire had no link with the scores of the class examination.
6.3.3 Development of Evaluation Criteria of Moral Education

Before the preparation of evaluation criteria of moral education, the researcher went through the theoretical consideration which he has discussed in Chapter 7.3. Afterwards, he prepared the preliminary draft of the criteria with the help and suggestions of his colleagues and experts in the field to remove the ambiguities. In fact, the researcher found some ambiguities in the preliminary draft which were removed along with some items that do not contribute to its purpose. Basic to the validity of the criteria are the right questions phrased in the least ambiguous way.

The researcher is aware of the fact that the criteria of moral education should have the content validity. Content validity refers to the degree to which the test actually measures, or is specifically related to, the traits for which it was designed. Obviously, it shows how adequately the test samples the universe of knowledge, attitudes and skills that a researcher is expected to learn.

As regards content validity, Best (1982) clearly states:

Content validity is based upon careful examination of course text books, syllabi, objectives and the judgements of subject matter specialists. The criterion of content validity is often assessed by a panel of experts in the field who judge its adequacy, but there is no numerical way to express it. (p. 197)

As per the suggestion of Best (1982), the researcher sent the draft of the evaluation criteria of moral education
to 20 veteran professors of education with a request to assure the criterion of content validity. Those expert professors in the field of inquiry had fully agreed with the adequacy of the criteria and were unanimous of the content validity.

6.4 Collection of the Data

The data collection procedure is discussed as under:

6.4.1 Extent of Utilization of Moral Education

The questionnaires were sent to headteachers of 1500 primary schools randomly selected from rural and urban areas of 13 districts of Orissa in the month of December, 1989. The headteachers were requested to send back the questionnaire duly filled in by them as soon as possible. Hoping to get a prompt reply the researcher had enclosed a self addressed envelope with requisite postal stamps. By the end of March, 1990, he only received back 1097 questionnaires. On scrutiny it was found that 79 questionnaires were incomplete. As a result, the researcher excluded them. Moreover, the researcher took 1000 questionnaires out of 1018 for tabulation of data in order to find the data tabulation procedure easier.

6.4.2 Interest of Children in Moral Education

The data for this part of the study were collected in the year 1989 by the researcher by personally going to the different primary schools situated in the rural and urban, tribal and non-tribal areas of 13 districts of Orissa. In the administration of the questionnaire, he took the
assistance of the headteachers and the class teachers. In all 1353 filled in questionnaire were received back. On scrutiny it was found that 349 questionnaires were incomplete in many respect. Out of 1004 questionnaires, he took 1000 questionnaires purposefully to find out the percentage of response easily.

6.5 Statistical Procedure

The data collected through the questionnaires on extent of utilization of moral education and children's interest in moral education were tabulated and statistically analysed for drawing inferences and arriving at conclusions.