

*CHAPTER - III*

METHODOLOGY OF THE  
STUDY

## CHAPTER III

### METHODOLOGY

#### 3.0 INTRODUCTION

This chapter includes the details related to the methodology and procedure followed in the present study. These details have been discussed under the captions of research method/design, population, sample, procedure of data collection and the techniques used. The term methodology refers to the process and procedures one adopts while carrying out a study in order to achieve the particular objectives specified. "Scientific problems can be solved only on the basis of data, and a major responsibility of the scientist is to set up a research design capable of providing the data necessary to the solution of his problem. While the unity of research makes it impossible to say that one aspect is more crucial than another, the collection of data is of paramount importance in the conduct of research, since, obviously, no solution can be more adequate than the data on which it is based" (Mouly, 1963, p.95). The first requisite for any research is data without which no study could be conducted. For collection of data the investigator has to make up the design that is to plan for it before hand. Research design is the plan, structure, and strategy of investigation conceived so as to obtain answer to research question and control variance (Kerlinger, 2005). To explain the procedure used for collecting the data, the investigator has to describe the techniques used for collecting the data for his investigation; He has to describe also the method adopted in

drawing out the sample and procedure employed in tabulation and organizing the data. Keeping the above facts in view, the researcher felt it essential to explain the procedure used for this study and the techniques used for collecting data for this research.

Methodology is concerned with how one goes about actually conducting research. The particular procedure one might employ in the given investigation will however depend upon the nature and the objectives of the study. A detailed account of the methodology of the present study is presented in chapter III. Thus, this chapter is confined to discuss these steps as follows: Design of the study, Tools used, Collection of data and Data treatment.

### **3.1 DESIGN OF THE STUDY**

Design is the blue print of the procedure that enables the researcher to test hypothesis by reaching valid conclusions. Kerlinger (1973) defined research design as "the plan, structure and strategy of investigation and control variance" (p. 300). Thus the plan includes an outline of what the investigator will do from writing the objectives to the final analysis of the data. The selection of a particular design is based upon the purpose of an experiment, the type of variables to be manipulated, and the condition or the limiting factors under which it is to be conducted. There are a number of combinations of the experimental procedure. The basic designs are the single group design, the parallel group design, the rotation group design and the factorial design (Mouly 1963). The present study is a Qualitative

Intervention study following pretest- Intervention- posttest design on the single group of subjects.

The experimental group is exposed to the influence of the factor under consideration. Observations are then made to determine what difference appears or what change or modification occurs in the experimental group. The differences between the pre-test and post-test scores were compared to ascertain the impact of the intervention programme.

### **3.2 POPULATION**

A population generally refers to any collection of specified group of human beings or of non-human entities such as objects, educational institutions, time units, geographical areas etc. Measuring the entire population is impractical though not impossible. So, one has to draw a sample from the population concerned.

Population in the present study involves the students of Class VIII studying in Secondary Institutions of South District (Sikkim). In the district of South the institution providing education may be classified into three categories:

1. **Government Secondary Schools** which are run by the Government of Sikkim and recognized and affiliated to the Central Board of Secondary Education.
2. **Central School** which provides education on all India basis and run by Central School Organization.

3. **Private Secondary Schools** which are run by Educational Trust and recognized and affiliated to Indian Certificate School Examination.

Government Secondary schools are more or less similar in their structure, functioning and management are included in the study (for more detail see Appendix-A). To state it precisely, the population in the present study consists of Government New Secondary Schools of South Sikkim.

### **3.3 SAMPLING**

After defining the population and listing all the units a researcher selects a sample of units from the sampling frame. The process of such selection is called sampling. A good sample is one which is unbiased and representative of the whole population. A good sample must be as nearly representative of the entire population as possible and ideally it must provide the whole of the information about the population from which the sample has been drawn (Koul, 2002). Hans (1988) regarding the technique says, "since it is left to the investigator to decide what to pick up and what not to be included in the sample, it becomes essential and a feature of the method that he should pick up sample in such a way that no bias gets introduced in the sample". Wilkinson and Bhandarkar (1988) say that, "the basic assumption behind judgement or purposive sampling is that with the exercise of good judgement and appropriate strategy one can hand pick the case to be included in the sample and thus develop samples that are satisfactory in relation to one's research needs".

Purposive sampling has been taken for the present study. Purposive sampling is a procedure by which researchers select a subject or subjects based on predetermined criteria about the extent to which the selected subject could contribute to the research study. In the purposive sampling the primary goal is understanding of an issue or topic in sufficient detail to provide information to design subsequent studies.

The following procedure was followed for the purposive sampling. The investigator prepared a list of total number of Govt. & Private institutions in Namchi. Then the following criteria were taken into consideration for the selection of the sample namely the willingness of the school to permit the investigator to carry out research and the second was the proximity of the school for the researcher. The sample of this study included the students of Class VIII of Govt New Secondary School Namchi, South Sikkim, Namchi. There were 37 students in the beginning of the academic year 2005. Of 37 students 2 dropped-out in the middle of the academic year. They have been excluded from the sample group in the present study. The third student failed in the final examination. At the time of conducting posttest she could not be contacted. Hence, she is not included in the sample. Thus, the total sample constitutes only 34 students.

### **3.4 THE TOOLS**

A researcher has to select and use appropriate tools for collecting data for a research. Hence, in any investigation suitable tools are to be chosen for use to elicit information. The tools were used for investigation were Focused Group Discussion, Critical Pedagogy, Intensive Journaling,

Observation, Unstructured Interviews and Anecdotal Records. These tools were used by the investigator to measure the specific variables as shown in Table 3.1 below.

Objectives	Tools	Nature of data	Data analysis
1. Identification of conflicting values.	Focus group discussion	Qualitative	Qualitative
2. Dealing with present value conflicts	Focus group discussion	Qualitative	Qualitative
3. Administration of value clarification strategies to deal with value conflicts.	Critical Pedagogy	Qualitative	Qualitative
4. Impact of the implementation programme on the sample of subjects	Observation Unstructured interviews Anecdotal records Intensive Journaling	Qualitative	Qualitative

**Table 3.1 Tools for Data Collection**

### **3.4.1 TEST OF MORAL JUDGEMENT**

This test was developed by R.C Das in the year 1991. The test was constructed in English and consists of two parts: One test booklet and an answer sheet. This test is based on Kohlberg's theory of moral judgement and measures the moral development of the subject in terms of the state at which he/she functions. The test consisted of 12 stories (moral dilemmas). Moral dilemmas were given as test items and the subjects were asked to select two statements as "Most important" and "Second most important" for coming to a decision on the dilemma out of eight given options under each story and were asked to write the said number of the statement on a separate answer sheet. The eight options were so chosen that at least one

question has indicative of one stage between stages 2 and 6 of moral development as per Kohlberg's theory. There were three stages for which two options were given and for the remaining two stages one option each. The options were chosen such that there were in equal numbers of statements under each stage from 2 to 6 for the whole test.

Reliability and validity of the test of moral judgement were determined by administering the test on all India samples of 520 students of Class IX. The validity coefficient of the test with DIT by James Rest [DIT was also based on Kohlberg's theory] was found to be +0.89, which is very high. The scoring key was developed by the author of the test. It gives stage values of the students under each story. (Appendix - B) This tool was administered on the experimental group as pretest and posttest to ascertain the impact of the intervention programme.

### **3.4.2 INTENSIVE JOURNAL**

Intensive Journal (I J) is a method of personal growth, developed by Dr. Ira Progoff. It facilitates the discovery of the overall meaning, direction and saving mystery of our life in our personal experience. It is a tool that draws out Inner resources, helping us to become aware of new depths and potentialities of our self in all its aspects: conscious/unconscious, mind /body/spirit, intellect/emotion, personal/transpersonal, historical / spiritual.

Life is as a seed that knows how to grow; it is movement of energy that has potential and direction, acting on this self integrating principle of life

(the holistic principle of creativity). We position ourselves in our life in such a way that the content of our life starts revealing its inner meaning and we start sensing its continuity and direction. In this way we tap its potential and surrender to its direction. This process takes place here and now.

The I J enables us to enter into a growing and befriending "covenant" relationship with our whole life history; it lets our life reveal itself, giving perspective to the past and guidance for the future; it enables the healing of memories, personal integration, development of awareness and a continuous discerning attitude. It can be used any time, partially or fully, and in different circumstances [when comfortable or disturbed, when seeking greater clarity or when discerning a course of action, to deepen one particular aspect or when seeking a perspective, etc...]

The main fruit of the I J is self awareness, self acceptance and self direction: the self understood and experienced in a radically open sense, open and connected with human kind, life, nature the universe, God (Ira Progoff 1966).

There are various methods of maintaining Intensive Journal such as Daily Log (DL) Period Log (PL), Twilight Imagery Log (TIL), Stepping Stones (SS), Dialogue, Meditation Log (ML) and Dream Log (DL). The investigator has used Daily Log for the present study. A brief description and the process of it have been described below.

## DAILY LOG (DL)

Daily Log', which is the closest to the unstructured diary, is the section where we keep the record of the events, happenings, experiences of the past 24 hours (or since we last wrote in the Daily Log ) that have had an impact on us i.e. what? How? Why? They have subjectively affected us.

DL is not a list of events, but a gathering of inner experiences of all kinds on a current basis within the movement of our lives. This loose section becomes the reservoir of material which will be further unfolded in other sections of the I J. It starts the ball rolling. Brief, factual, descriptive entries (neither wordy, nor judgmental, nor interpretative), noting down events and experiences with content and feelings. We can let the 24 hours come to us as a whole, or we can recapitulate this period systematically.

The following procedure was followed by the subjects to maintain their

Daily Log:

Name:----- Date-----

01. Sit in stillness. Breathe slowly, regularly, close your eyes, and reach into your self. Let yourself feel the inner movement of the events of your life.
02. Go back in memory over the last 24 hours or the period since your last wrote in your Daily Log. Remember as many specific details as you can: events, feelings, thoughts, desires, hopes emotions you experienced on conscious and non-conscious levels. Did you sleep well or badly? Did you dream? Remember as much of your dream or dreams as you began the day? Were

you enthusiastic, anxious, light or heavy? Did visual images or strong clear feelings come to you? Fantasies?

03. You may start writing by making a brief open statement about the day as a whole.
04. Then without censoring and without judging, record whatever you can, going step by step through each part of the day. What were you feeling about your tasks ahead? Any experiences of love and affection or of frustration as the hours passed on. The effect that events, tasks and people had on you as you went on through the morning, noon and evening up to the time you prepared for bed. Also spend some time remembering and noting down different events and experiences of your body, senses.
05. Pay no attention to the style of writing. This is not an exercise in literature. Feel free to write in everyday language. Let the flow of words reach the paper without inadvertently censoring or editing the material you are recording. Do not exclude some things because you are ashamed of them. Be honest. Maintain a neutral position in the recording.
06. Then become quiet again. Breathe slowly, do not think. Let your whole being absorb the feelings you have been describing. Record whatever additional feeling, thoughts, memories and observations come to you and also what you are feeling now. If any material you wrote down suggests itself to be explored further in any section of the I J, note it down.

The researcher devoted one session in training the sample group to maintain their daily log. They were given practice how to write and maintain daily log (for the format of maintaining daily log refer index-G). Data obtained from the intensive journal was coded according to the area of study and interpretation was done qualitatively to study the impact of the intervention programme.

### **3.4.3 FOCUS GROUP DISCUSSION**

Focus Group Interviews are also described as organized group discussion which are focussed around a single theme. ( Krueger, 1986). It involves informal discussion amongst individuals about a specific topic(s) relevant to the concerned situation (Beck, Trombetta and Share,1986).The techniques envisages a permissive climate, which facilitates fostering a range of opinions about the issues/topic/theme. The goals of focus group discussion are not to build consensus but to elicit a range of opinions from individuals about the issue.

Focus group discussion was used to identify conflicting values as experienced by the subject.

### **3.4.4 ANECDOTAL RECORDS**

Anecdotal records are factual descriptions of the meaningful incidents and events that the teacher has observed in the pupils lives. It enables the teacher to determine how pupils typically perform in a variety of situations. Teacher's daily observation gives them a wealth of information concerning learning and development of their pupils (Norman, 1985).

While conducting the intervention programme and during the regular visit to the school the investigator came across certain behaviour of the students pertaining to his study were recorded in anecdotal record. The investigator participated in several school events during the whole academic year where he came across some interesting and relevant behaviour relevant to the study were also recorded in the record. The format for recording anecdotal records (refer Appendix-F).

Data obtained from the anecdotal record were analyzed qualitatively to study the impact of the intervention programme. The investigator employed content analysis to analyze the data obtained from the anecdotal records.

#### **3.4.5 OBSERVATION**

The Unstructured Interviews is the one in which the procedure to be followed is not standardized and is not determined in advance of the interview. In order to circumvent some of the problems in interviews the researcher resorted to the use of the direct observation of students in a variety of situations ranging from classroom to outside classroom. The researcher made use of the participative observation on various occasions. With the prior permission, the researcher sat in the class while normal classes were being executed by the subject teachers. Outside the class, especially during certain events, the behaviour, interest, and student's activities were observed and recorded. The observations made of the various subject teachers before and after the intervention programme were recorded by the investigator in his field book.

Data obtained from the observation was analyzed qualitatively and quantitatively depending on the nature of the data. For instance, that data obtained from the Subject Teachers were analyzed quantitatively. For the analysis of other data, the guidelines given by Miles and Huberman (1994) have (as cited in Wellington 2006) been used. They have suggested three stages of analysis of qualitative data: data reduction, data display and conclusion drawing and verification.

Data obtained from the observation was to study the impact of the intervention programme.

#### **3.4.6 UNSTRUCTURED INTERVIEWS**

The Unstructured Interviews with the Subject Teachers as well as with the sample group were conducted by the researcher. It is also believed that when one is without constrain, his/her feelings and opinions are best expressed. The researcher observed that the teachers and the sample of subject were more comfortable and felt at ease to talk and share their experiences; hence unstructured interviews were preferred by the researcher. The investigator interviewed the subject teachers as well the sample group often individually in and outside the campus and gathered information of particular interest for his research. The responses of the unstructured interviews with the sample group during one and half years were also recorded.

For the analysis of data obtained from unstructured interviews, the steps given by Miles and Huberman (1994) have (as cited in Wellington, 2006)

been used. They have suggested three stages of analysis of qualitative data: data reduction, data display and conclusion drawing and verification. Data obtained from the observation was to study the impact of the intervention programme.

### **3.5 PILOT STUDY**

Prior to data collection, a pilot study was conducted using Critical Pedagogy of Paulo Freire. The main purpose of pilot study was to assess the validity of the tool for the present research. Besides, it was meant to find out its uses in the present study. The value dilemma was prepared by the investigator and it was administered to the students of Class VIII selected for the purpose. The procedure followed for the pilot study consisted of three steps. It was observed that Critical Pedagogy helped the student to analyze the situation in great depth. The main points of each group were presented before the entire group. At the end, the investigator generalized the discussion and asked them to write down future action plan to translate what was learned in their daily behaviour.

In the process of the pilot study, the investigator had not given attention to some of the untenable assumptions of the students. It was also realized that unless the dilemma was according to the age, pattern of learning, and interest discussion was less interesting. Therefore, in order to involve the students more in the discussion the investigator made a few modifications in the entire process for the meaningful and lively discussion.

### **3.6 METHOD TO RECORD QUALITATIVE DATA**

The investigator maintained a detailed step by step record of each dilemma and discussion sessions which included the theme of dilemma, date, time and mode of presentation, formation of the group, the response of students and on the basis of their choice, arguments presented by each group in support of their choice, the discussion that followed, probing questions by the investigator and the discussion generated by the probing question and the post discussion response by the students.

### **3.7 PROCEDURE OF THE STUDY**

Prior to the data collection, necessary rapport was established through ice-breaking session and personal contacts. The purpose of the study was explained to them. The subjects were requested to answer the question sincerely and frankly. They were assured that the responses would be kept strictly confidential. In order to get permission for conducting study, the investigator approached the Principal of New Secondary School, Namchi and explained about the objectives of conducting research. Having got the permission from the Principal of the school, data collection was organized in the following phases:

#### **PHASE I: PRE INTERVENTION PROGRAMME**

For the identification of value conflicts prevailing among the sample group, the investigator conducted a focus group discussion. Same technique was used to investigate the method and procedure adopted by the sample group to deal with their value conflicts

## PHASE II: INTERVENTION PROGRAMME

Critical Pedagogy was used for each proceeding of value clarification session. The method comprised of three important steps.

### Step I:

Step one consisted of organization of the teaching points, writing instruction objectives for the value conflicts identified. While writing the teaching points attempts were made to see that the content of the dilemmas chosen for discussion reflected sufficiently those conflicting values. To make the discussion interesting and lively, contents were very carefully chosen which directly or indirectly related to the life of the students.

### Step II:

Step two included various strategies for value internalization using critical pedagogy at the cognitive level. Special emphasis was given to identify their values conflicts, analyze it through discussion and sharing in depth with the groups.

### Step III:

The third and the final step was the application of the value at affective level of the sample group. It included both at general and personal level. At the general level the whole group was asked to plan concrete steps to apply it in their life. Similarly, at the personal level they were encouraged to behave in ways that are consistent with their values, and respect other's values. Finally the sample group were asked to maintain their personal diary to be written

down, the future action plan, the mode of practice of the values in their life.

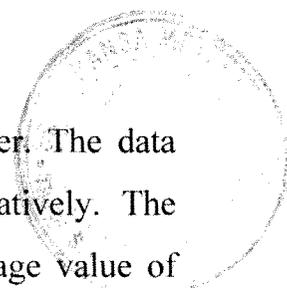
In the group discussion the investigator had two main tasks - to promote interaction among the students and to keep the discussion focussed on the value. For this reason while discussion was on the researcher went around to different groups. The investigator asked probing questions to help students examine issues they had ignored. Probing questions were asked to facilitate valuing process on the sample of subject. It helped students to think in an increasingly broad societal perspective to focus increasingly on the larger values issues implicit in a dilemma. Such probing questions were asked when and as required during the intervention programme.

#### **PHASE III: POST INTERVENTION PROGRAMME**

A week after the completion of value discussion session in the experimental group, post test was administered to the group. The same tools that were used for the pre test were used for the post test. The investigator himself distributed the questionnaire to the students. At the end the investigator himself collected the questionnaires. There was no time limit for responding. However, most of them took about an hour to complete the test. Two of them took fifty minutes to complete.

#### **3.8 ANALYSIS OF THE DATA**

The main purpose of the study was to study the impact of value clarification strategies to enable the students of class VIII to deal with value conflicts. The data included both quantitative and qualitative. The major portion of the data in this study included qualitative in nature



collected from using various tools mentioned in this chapter. The data obtained on the moral judgement were analyzed quantitatively. The pretest and posttest results were compared. The average stage value of each subject was plotted in figure to give a comparative picture.

The data obtained from four groups applying focus group were analyzed quantitatively. The following method was followed for the analysis of the data. After rereading and careful consideration of data, the main ideas were identified. Having identified the main ideas, these main ideas were transcribed into a piece of units. These units were categorized for the possible inclusion of the units for study. Finally, in the light of the work done with the information units and categories, the ideas were reframed and restated. This may be termed as Themes. The most common themes which pertained to the entire class were considered for the present study. Similar procedure of data analysis was adopted on the sample group for the Research Question No. 2. that is, how are the sample of subjects coping with the value conflicts that they face in their day to day life?

The qualitative data collected with the help of Participative Observation, Unstructured Interviews, Anecdotal Records, Intensive Journal were analyzed qualitatively keeping in mind the objectives stated in chapter I by the researcher. The qualitative data collected using different tools from the sample subjects were organized according to the research questions. Once the data were organized, the researcher moved on to the analysis of data that is description. In this stage, the investigator has described the various aspects of study. For example, the purpose of the various

activities examined, the viewpoints of participants and effects of activities on the participants. At the end interpretation has been done after the data have been organized and described keeping in mind the internal and external validity.

### **3.9 CONCLUSION**

After having outlined the methodology which comprises of the design of the study, the data collection, and the procedure of data analysis, the next stage is the actual conduct of intervention programme to study the impact of the study on sample of students. A detailed description of the intervention programme has been given in Chapter IV.