

Chapter III

METHODOLOGY

3.1 Introduction

This Chapter presents and describes the details of the procedure and processes followed in carrying out the study in accordance with the objectives of the study. This chapter defines the population in terms of its characteristics, describes the techniques used in selecting the sample. It also provides description of research tool used, the process of data collection and statistical methods/techniques used to analyze the study.

3.2 Research Design

The study was conducted by using a descriptive sample survey method of research.

Descriptive research studies are designed to obtain pertinent and precise information concerning the status of phenomena and, whenever possible, to draw valid general conclusions from the facts discovered. They are restricted not only to fact finding but may often result in the formulation of important principles of knowledge and solution of significant problems concerning local, state, national and international issues.

Descriptive studies are more than just a collection of data; they involved measurement, classification, analysis, comparison, and interpretation.

The descriptive research method has undoubtedly been the most popular and the most widely used research method in education. It helps to explain educational phenomena in terms of the conditions or relationships that exist, opinions that are held by students, teachers, parents and experts, processes that are going on, effects that are evident, or trends that are developing. Descriptive survey is the only means through which opinions, attitudes, suggestions for improvement of educational practices and instruction, and other data can be obtained.

3.3 Population of the Study

The whole population of units of a given type about which we wish to make conclusions forms the population under study. The population must be defined in terms of units of analysis, extent of coverage and reference time.

The population of the study comprises all elementary to high school teachers, students and parents of the rural areas of Cuttack district in Odisha. It includes various distinct sub-groups such as male and female, private and government belonging to of varying age groups.

3.4 Sample of the Study

Sampling is a process by which a relatively small number of individuals or measures of individuals, objects or events is selected and analyzed in order to find out something about the entire population from which it was selected. It helps to reduce expenditure, save time and energy. Sampling procedures provide generalizations based on a relatively small proportion of the population. The representative proportion of the population is called a sample.

The sample size consists of 30 teachers, 37 students and 30 parents from different schools in the research area. This research study conducted three surveys: to the student population, to the teacher population and to the parent population. Purposive sampling technique was used to select sample from the populations.

3.5 Tools Used For Data Collection

The instrument which is used for gathering or collecting facts for exploring new fields is called a tool. In the present study, in order

- To study the perception of teachers about implementation of online education, a custom made questionnaire prepared.
- To study the perception of parents about implementation of online education, an interview schedule developed.
- To study the perception of students about implementation of online education, questionnaire to conduct Focused Group Discussion (FGD) developed.

There were 13 questions in questionnaire for teachers, 10 questions in the interview schedule of the parents while 6 questions in the focused group discussion. Multiple choices were provided in the questionnaire and interview schedule, where the subject can choose one option or multiple options at some questions. In addition, some open-ended questions were provided seeking subject's suggestion.

The tools used in this study were constructed on the basis of following criteria:

- The relevance of the objective of the study
- Time needed for the tool
- Simple language to understand by subjects

3.6 Key Dimensions

Several key dimensions were considered while framing the questions.

For Teachers:

- Orientation of teachers on online education,
- Difficulties faced
- Time and duration of classes
- Attendance rate of students
- Use of technology tools
- Pedagogy practices
- Teaching and learning materials used
- Learner Assessment

For Parents:

- Ways of learning
- Availability of resources
- Engagement period
- Usefulness of online classes
- Regularity of classes
- difficulties faced
- future of online learning
- child's response to learning

For students:

- ways of studying
- Devices used for online education,
- Duration of classes in a day

- Regularity of classes
- Advantage of online classes,
- Preferred mode of education,
- Difficulties faced in online learning

3.7 Method of Data Collection

Data collection is a process of gathering data from various source or participants, which depends on the study. Through data collection, the researcher can gather data from specific group of participants with relevant questions and outcomes will be obtained based on data analysis.

Upon identifying a list of potential participants for the research study, the researcher

- Emails or printed questionnaires were sent to 30 experienced teachers explaining the study's purpose and asking them to volunteer to participate in the study. When the researcher had received the responses, the participants were contacted by phone so that additional information about the study could be provided to determine if those participants met the purposeful sampling criteria to continue as part of the study. The participants were chosen 8 elementary and secondary schools.
- Collected data from parents in face-to-face mode with the help of Interview schedules.
- Conducted four sessions of focused group discussions (FGD) with group of students (7-10 students/FGD) to collect the qualitative data from them.

3.8 Data Analysis

The data collected from the stakeholders were analyzed with the help of MS excel sheet and presented in the form of tables and diagrams. Both qualitative and quantitative techniques were used in the analysis of data. The quantitative data are analyzed using the descriptive statistical technique of percentage, whereas qualitative data were analyzed using coding-decoding and classification method.