

CHAPTER-3
RESEARCH METHODOLOGY

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3.0.0 INTRODUCTION

One of the contributing factors of a successful research is its methodology. It is important to follow the research methodology as it gives a right direction to any research. This chapter guides the investigator in the process of collecting, analysing and interpreting data and be on track. The study design is logical model of proof that allows the investigator to draw inferences, concerning causal relations among the variable under investigation, but a very important thing to keep in mind is that there is no single, specific model or blue print available for planning and conducting a study. Basically, a study design is directed by the clarity of “fitness of purpose”. It means that purpose decide the methodology and design of the study. It is also important to note that study design is a term which refers to a structural framework of study, this makes one understand every aspect of the particular study with clarity.

It deals with description of the area or location where the study was conducted, research method employed for investigation, procedure used for selection of sample from population, tools developed for collection of data, procedure followed for collection of data, organization of data and statistical techniques used for analysis of data. The methodology and procedure were described under following heads.

- Area or location of the study
- Method of research
- Design of the study
- Population and sample
- Tools used
- Procedure of data collection
- Organization of data
- Statistical technique used for analysis

3.1.0 AREA OR LOCATION OF THE STUDY

The present study was conducted to know the perspectives of secondary school teachers in the integration of ICT in the teaching-learning process. The area of the study consists of three districts of Odisha namely, Mayurbhanj and Balasore, Sambalpur. The education system of these districts in rural areas is largely managed and controlled by government, where as in urban areas the system is managed and controlled by both government and private bodies.

3.2.0 METHOD OF RESEARCH

In the present study descriptive survey method was implemented. A descriptive survey research is an approach of descriptive research that blends quantitative and qualitative data to provide you with relevant and accurate information. It can only conduct via. Survey, observation and case study(voxco). The survey method gathers data from the population with relatively large sample at particular time and it attempts to describe and interpret what exists at present conditions, processes, trends, attitudes and belief for the participants of the research.

Since the main purpose of the present study is to consider secondary school teacher's perspectives towards integration of ICT in the teaching-learning process, so descriptive survey method is taken for consideration.

3.3.0 DESIGN OF THE STUDY

The design of the study gives a total picture of research. The design of the present study is descriptive research. Descriptive research collects data that are used to answer a wide range of what, when and how pertaining to a particular population group (research connections). 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. Literally, descriptive research means an investigation which focuses on just describing the phenomenon telling, as an outcome of research, what it is. Descriptive research deals with the relationships between variables, the testing of

hypothesis, and the development of generalizations, principles or theories that have universal validity.

The research strategy for the study was a qualitative survey. A limited survey was found suitable for investigating the perceptions of student teachers and teachers regarding ICT application, integration and utility in teaching- learning process in the three districts of Odisha.

3.4.0 POPULATION AND SAMPLE

The secondary school teacher and secondary school student teachers from the district of Sambalpur, Balasore and Mayurbhanj in the state of Odisha, India taken as the population of the present study. Since it was difficult to include all the secondary school teachers and student teachers in this study; keeping such factors as time, physical and financial constraints, a sample of 40 responses each from in-service and pre-service teacher categories was taken for present study. In-service teachers and pre-service teachers were selected randomly using sampling methods. In the first phase, a list of total number of 20 secondary schools and 4 universities situated in these districts were prepared and out of which 5 secondary schools and 3 universities were selected using the Table of Random Numbers (Fisher and Yates 1963). In the second phase, a list of secondary school teachers working in the selected 5 secondary schools and a list of student teachers studied in the 3 universities in these districts of Odisha was prepared and a sum total of 40 teachers were selected randomly using the Table of Random Numbers.

3.5.0 TOOL USED

In order to collect data from the sample tool developed by the researcher with expert consultation. That is

3.5.1 The Information Communication Technology Survey Questionnaire of Secondary Teachers

The Information and Communication Technology survey Questionnaire of secondary teachers have been developed to collect information from the prepared list of secondary school teachers and student teachers to know their perception towards the integration of ICT in the teaching-learning process. The questionnaire consisted of 40 multiple choice questions related to the subject matter. The question number 1, 2, 3, 4 and 5 were related to their

personal data including their name, age, gender, years of experience and subject/subjects. Rest 35 questions are prepared by the researcher in order to collect their feedbacks, attitudes and uses of ICT and ICT resources in the classroom teaching. Out of these 35 questions, question number 20, 21, 28,29 is specially designed for testing the hypothesis. There are no open-ended questions present in the questionnaire.

3.5.2 Scoring

The scoring was done by using five-point rating scale which was prepared by the researcher. In this scale all the items are positive worded and there is no negative item and each item is worded “Strongly Agree”, “Agree”, “Neutral”, “Strongly Disagree” and “Disagree”. The maximum possible score was 150. In this scale the average of teacher’s perceptions in the integration of ICT was considered as their perspectives. Scoring key of the rating scale is given in the table 3.1.

Table:3.1: Five Point Rating Scale Table

Response	Scoring
Strongly Agree	5
Agree	4
Neutral	3
Disagree	2
Strongly Disagree	1

3.5.3 Validity

Since questionnaire was a one-time data-gathering instrument with a very short life, content validity was estimated for the questionnaire. The items constructed for the questionnaire under two parts were made free from ambiguity, and were short and stated clearly. While preparing questionnaire, the researcher consulted colleagues and obtained their suggestions to improve the items. Lastly, the questionnaire was sent to ten experts specialized in educational measurement and evaluation to judge the appropriateness of items. Therefore, the content validity of the questionnaire was ascertained.

3.6.0 PROCEDURE OF DATA COLLECTION

Data collection is one of the most laborious tasks in a study. A well plan organized by the researcher that helped her to collect the required data in a sequential manner, with the prior permission of head of the institution. The researcher met the selected per-service and in-service teachers in a virtual mode. After giving self-introduction, the researcher explained the purpose of research and encouraged them to be free and frank in giving responses. To win confidence of respondents and to elicit genuine responses from them, the researcher promised to keep their responses confidentially. After completion of responses the researcher collected the filled questionnaires and scores it by using the scoring key for the research tools.