

CHAPTER-III
Research Methodology

3.0 Introduction

In the previous chapter, the investigator dealt with the importance of review of related literature, dimension wise review of related literature. This chapter deals with the methodology which comprises of the research design, population and sample for the study, tools used for data collection, tools used for collecting the data, procedure of data collection, scoring procedure and statistical techniques used. In this chapter, the investigator has presented a detailed description of the methodology used in the present study.

3.1 Research Method

Research Method is a way to find out the result of a given problem on a specific matter or problem that is also referred as research problem. In Methodology, researcher uses different criteria for solving/searching the given research problem. Different sources use different type of methods. All those method which are used by the researcher during the course of for solving the research problem studying are termed as research method. Here, research design, population and sample for the study, tools used for data collection, tools used for collecting the data, procedure of data collection and statistical techniques are highlighted.

3.2 Design of the study

Descriptive studies are aimed at finding out existing status of any phenomena. Descriptive research studies are designed to investigate 'what exists' with respect to variables or conditions in a present situation. The present study aimed to find out the existing academic readiness, acceptance and motivation of students towards E-learning. By keeping the nature of study descriptive survey method has been used in this study.

3.3 Population and Sample of the study

In the present study the target population is all secondary students of Odisha. Among them 40 secondary students (Class X) of Jajpur District will be selected as sample for the present study by using purposive sampling technique.

Table 1.0 Variable-wise Distribution of Sample

Sl. No	Variable	Dimension	Frequency (N)
1	Gender	Boys	20
		Girls	20

3.4 Tools and Techniques used for Data Collection

A five point likert scale has been used by the researcher as a tool to study the attitude of students towards E-learning and to indentify the factors affecting E-learning. The description of the tools used for the study has been discussed below.

3.4.1 Self Developed attitude Scale for Students

A self developed attitude scale for students was developed by the investigator. It was a five point scale consist Strongly Agreed(SA) , Agreed(A) , Undecided(UD) , Disagreed(DA) , Strongly Disagreed(SD). The attitude scale was developed considering to the guidelines and basic dimension of E-learning. For the purpose of this study, attitude scale is concern as the views of students about E-learning with respect to the following aspects;

- The Acceptance of E-learning
- Readiness towards E-learning
- Motivation For E-learning
- Problems in E-learning

Table 2.0: Dimension wise items in Attitude scale

S.L. No.	Dimensions	Number of Items
1	Readiness towards E-learning	6
2	Acceptance of E-learning	5
3	Motivation For E-learning	4
4	Problems in E-learning	5
Total		20

3.4.2 Development of Tools

Investigator read many journals, articles; newspaper, thesis and UGC documents related to E-learning for develop an insight to prepare the attitude scale. The attitude scale which is comprises of different dimensions of E-learning. It was prepared through following stages:

1. Preparation of initial draft: At the primary stage the investigator has prepared a draft of attitude scale consisting of 30 items.

2. Consultation the experts: The initial draft of attitude scale was prepared guide and experts. As per the suggestions recommend by the guide during the review process, some of items were removed, the language of some was changed and some new items were added.

3. Final draft: Through the above process final draft of the tool was prepared containing 20 items and in bilingual form.

3.5 Procedure of Data Collection

After developing appropriate tool, the investigator himself visited the selected schools personally for collection of data as well as used the Google form for the same. After taking permission from principal of the school the investigator administered the attitude scale on students of school which includes 20 Likert scale items after providing necessary instructions.

3.6 Scoring Procedure

The Attitude Scale consists of 20 items for students encompassing the four dimensions or components such as, acceptance of E-learning, readiness towards E-learning, motivation For E-learning and Problems in E-learning. The responses range from Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree. For positive statements following positive points were assigned: 5 = Strongly Agree, 4 = Agree, 3 = Undecided, 2 = Disagree, 1 = Strongly Disagree and negative statements 1 = Strongly Agree, 2 = Agree, 3 = Undecided, 4 = Disagree, 5 = Strongly Disagree.

3.7 Techniques of Data Analysis

In the present study quantitative techniques have been used for analysis of data. All the items in the attitude scale were analyzed using the Statistical Package for Social Sciences (SPSS) and percentage analysis. Statistical techniques like mean, standard deviation, t-test, have been used to analyze and interpret the data. In the first phase descriptive statistics like mean, standard deviation, percentage has been used to study the difference in attitude of students towards E-learning with respect to their gender. For every item and dimension statistically analyzed, frequencies and percentages were calculated. T-test has been used by the investigator to check the significant difference in the attitude of boys and girl at secondary level with reference to all the four dimensions. Correlation has been used to check the relationship between readiness, acceptance and motivation of Secondary students towards E-learning.

3.8. Summary

In this chapter, the investigator dealt with the research design, population and sample of the study, tools used for data collection, procedure for data collection, scoring procedure, statistical techniques used. In the next chapter, the investigator would deal with the analysis and interpretation of data based on descriptive and inferential statistics.