

## CHAPTER 3

# METHODOLOGY OF THE RESEARCH

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### 3.1 Introduction

The preceding chapter has given a broad overview of the researches investigation on online and face to face mode of learning. The purpose of educational research cannot be completed without detailed research design involves systematic procedures, which starts from identification of problems to analyze the obtained data.

The purpose of this study is to know the difference between the academic achievements in science of class 8<sup>th</sup> students taught by online mode and face to face mode.

This chapter deals with the methodology employed to achieve the objective of the study mentioned in chapter one.

- Population
- Sample
- Design of the study
- Tools
- Procedure of the study

### 3.1 Population & Sample

#### 3.1.1 Population

Population is taken from K.V no.1 Bhubaneswar of class 8

**Table no.2 Section wise total no. of students in class 8th**

Classes	8A	8B	8C	8D	Total
<b>Total no. of students</b>	50	48	53	54	205

#### 3.1.2 Sample

Out of 205 populations, 30 samples were selected by the researcher through simple random Sampling procedure where 15 samples were there in each group (control& experimental group).

### Details o the sample

Table no.3 Group wise no. of boys, no. of girls & total no. of students

Groups	Boys	Girls	Total
Control (8C)	7	8	15
Experimental (8D)	9	6	15
Total	16	14	30

### 3.2 Design of the study

The researcher used Experimental method for conducting the research. The design followed for the present study is post-test control group design.

Table no.4 Types of treatment & test in control & experimental group

Characteristics	Control group	Experimental group
Treatment	Face to face mode of learning	Online mode of learning
Test	Post test	Post test

### 3.3 Tools for the Collection of data

#### 3.3.1 Achievement Test

The achievement test was developed by the researcher to gather the student's performance in the test. There were 30 questions and for each question 1 mark was given. The questions were based on knowledge, understanding, application, analysis and evaluation. The questions were written in the English language.

#### 3.3.2 Lesson plan

The researcher developed 10 lesson plans, 5 in each chapter (2 chapters).

### 3.3 Procedure of the study

- On the very first day the researcher was engaged in building rapport with the population she chooses for its study.
- In class 8C the total number of learners was 53. Out of which the researcher selected 15 learners for its study through the simple random sampling procedure. This particular group was named as control group.

- In class 8D the total number of learners was 54. Out of which the researcher selected 15 learners for its study through the simple random sampling procedure. This particular group was named as experimental group.
- All total of 10 lesson plan,5 in each chapter (2 chapters) were prepared for the delivery of the lesson.
- The researcher teaches the control group for 10 days (approximately 2 weeks) through face to face mode.
- After 10days the learners of control group were assessed through the achievement test.
- The researcher teaches the experimental group for 10 days (approximately 2 weeks) through online mode.
- After 10days the learners of experimental group were assessed through the achievement test.