CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

Research methodology is the specific procedures or techniques used to identify, select, process, and analyze information about a topic. In a **research** paper, the **methodology** section allows the reader to critically evaluate a **study's** overall validity and reliability. Research methodology simply refers to the practical "how" of any given piece of research. More specifically, it's about **how** a researcher **systematically designs a study** to ensure valid and **reliable results that address the research aims and objectives.**

For example, how did the researcher go about deciding?

- **What** data to collect (and what data to ignore)
- **Who** to collect it from (in research, this is called "sampling design")
- How to **collect** it (this is called "data collection methods")
- How to **analyze** it (this is called "data analysis methods")

In a dissertation, thesis, academic journal article (or pretty much any formal piece of research), you'll find a research methodology chapter (or section) which covers the aspects mentioned above. Importantly, a good methodology chapter in a dissertation or thesis explains not just **what** methodological choices were made, but also explains **why** they were made.

In other words, the methodology chapter should **justify** the design choices, by showing that the chosen methods and techniques are the best fit for the research aims and objectives, and will provide valid and reliable results. A good research methodology provides scientifically sound findings, whereas a poor methodology doesn't.

This chapter deals with:-

➤ Design of the study

- Population
- Sample
- Variables
- Achievement test
- Tools

3.2 DESIGN OF THE STUDY

The design followed for the present study is experimental two group design. The input given to both, the group has the two approaches of teaching English. The investigator used pot design test for control and experimental group to find out the effect of teaching through ICT on achievement of grade VIII students.

Characteristics	Control Group	Experimental Group
Treatment	Traditional Approach of teaching	Multimedia Approach of teaching
Status	Post Test	Post Test

3.3 SAMPLE

In research terms a **sample** is a group of people, objects, or items that are taken from a larger population for measurement. The sample should be representative of the population to ensure that we can generalize the findings from the research sample to the population as a whole.

A sample is defined as a smaller set of data that a researcher chooses or selects from a larger population by using a pre-defined selection method. These elements are known as sample points, sampling units, or observations. Creating a sample is an efficient method of conducting research. In most cases, it is impossible or costly and time-consuming to research the whole population. Hence, examining the sample provides insights that the researcher can apply to the entire population.

For conducting the present study keeping in view the limitation, resources and the pandemic the researcher uses simple random sampling.

Sample of the study is drawn from one school that is:-

Aman Public School, Bhopal.

Preliminary samples of 42 students were obtained to which tools were administered.

Details of the sample

Group	Boys	Girls	Total
Experimental	08	12	20
Control	10	12	22
Total	18	24	44

3.4 VARIABLES

A **variable in research** simply refers to a person, place, thing, or phenomenon that you are trying to measure in some way. The best way to understand the difference between a dependent and independent **variable** is that the meaning of each is implied by what the words tell us about the **variable** you are using.

Independent variable

The independent variables are conditions or the characteristics that the researcher manipulates, control and observes. The independent variables in the present study are the two different approaches of teaching English i.e. Traditional Method and Through ICT. The experimental group was taught by the ICT Approach and the control group was taught by the Traditional Method of teaching.

Dependent variable

The dependent variable is the condition or characteristic that appears or change as the experimenter removes or change the independent variable. The dependent variable in the present study is the Achievement in English.

3.5 Tools Used

Research tool may be defined as: Anything that becomes a means of collecting information for your study is called a research tool or a research instrument. For example, observation forms, interview schedules, questionnaires, and interview guides are all classified as research tools

In the present Study researcher has used the Achievement test as a tool to know the effectiveness of ICT in English Teaching.

Achievement test consisted of following lessons:

For construction of tools the sample questions were discussed with the guide and according to their suggestion the necessary changes were made in the achievement test. The achievement test consists of following components of English language skills. The selected topic according to the four skills of English language is included in the test is given below :
• Preposition

•Gerunds

•Verb

•Paragraph writing

•Conversation

•Writing task