

CHAPTER III
RESEARCH METHODOLOGY

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Research methodology is a way to systematically investigate the research problem. It gives various steps in conducting the research in a systematic and a logical way. It is essential to define the problem, state objectives and hypothesis clearly. The research design provides the details regarding what, where, when, how, much and by what means inquiry is initiated. Every piece of research must be planned and designed carefully so that the researcher proceeds ahead without getting confused at the subsequent steps of research. The researcher must have an objective understanding of what is to be done, what data is needed, what data collecting tools are to be employed and how the data is to be statistically analysed and interpreted. There are a number of approaches to the design of studies and research projects all of which may be equally valid.

Research is a systematic attempt to obtain answers to meaningful questions about phenomenon or events through the application of scientific procedures. It is an objective, impartial, empirical and logical analysis and recording of controlled observation that may lead to the development of generalisations, principles, or theories, resulting to some extent in prediction and control of events that may be consequences or causes of specific phenomenon. Research is a systematic and refined technique of thinking, employing specialised tools, instruments and procedures in order to obtain a more adequate solution of to problem than would be possible under ordinary circumstances. Thus, research always starts from question.

There are three types of objectives of research:

- Factual
- Practical
- Theoretical

These give rise to types of researches:

- Historical
- Experimental

- Descriptive.

Kothari (1990) observes, "Research design stands for advanced planning of the method to be adapted for collecting the relevant data and the techniques to be used in their research and availability of staff, time and money."

TYPE OF STUDY:

Experimental Research

DATA COLLECTION:

The students will be administered to learning without e-content after which an achievement test will be conducted. Then the students will be administered to learning using e-content after which another test will be conducted. The previous and latter test results would help determine how effective e-contents were for the class.

UNIVERSE OF THE STUDY:

The objectives of the research required the study of students of class 7th. For the students, universe was comprised of all the students of class 7th from Carmel Convent School, Ratanpur, Bhopal in the state of Madhya Pradesh.

SAMPLE AND SAMPLE DESIGN

Keeping into consideration the Objectives of the study, structured tests were prepared for the students so as to make a meaningful investigation. The tests were made On the basis of difficulty levels from easy, medium, too difficult and all the tenses of the English language were incorporated into the test. All questions were close ended.

SAMPLE:

Students of Carmel Convent School, Bhopal, from class 7 were samples of the study.

- **SELECTION OF THE SAMPLE :**

Students from class 7 of a random school were selected as samples of the study, as it is around this age that they are exposed to the Internet and its wonders, in leisure and in education alike.

- **Treatment:**

The students of were taught without E-content first after which a test was taken. Then they were taught via e-content after which they were again administered to an achievement test.

- **Test:**

An Achievement Test in the subject and Language of English constructed by the investigator was administered to the students twice i.e., before and after the treatment.

TOOLS AND TECHNIQUES

Teaching Learning Materials (TLM):

TLMs like charts, diagrams, etc. would be used for teaching the subjects of experimental group and TLMs like Audio-Visual aids, PPTs, etc. would be used to teach the subjects of the control group.

Achievement Test :

Learning achievement tests in English developed by the investigator or researcher will be used.

Paired t-test by Hand:

To the paired t-test by hand was used to determine if there is significant difference between the before-treatment test result and after-treatment test result.

VARIABLES

For the purpose of the present study, various variables are listed below:

INDEPENDENTVARIABLES-

- ***Intelligence:***
The experiment requires the level of intelligence of the learners to be developed enough to understand, learn and grasp the concept of “Tenses” and be able think about the same in a systematic manner.
- ***Internet:***
For the experiment group to be taught using e-content, and for conducting the tests, internet connection was required. The smart boards in the classrooms were put to good use.
- ***Student Response:***
The response of the students, or the results of the students’ tests is an independent variable.

DEPENDENTVARIABLES-

E-content:

The electronic content comprised of audio-visual interactive aids, reading and writing materials, etc. , and the mode of instruction ensured that learners used the LSRW skills to learn the Tenses.

Treatment :

The treatment i.e., that will be given by the researcher and/or teacher to the groups, is an dependent variable.

DATA ANALYSIS-

Data was analysed based on the relative performance of the learners in both the tests.