

CHAPTER - 3

RESEARCH METHODOLOGY

3.1 Introduction

In any research, the research design cannot be neglected. Research design is a blue print of the intended research. So, a research design is compared to a blue print of a navigator map for the researcher. In the absence of a research design the researcher will be in the fog of own making. In the previous chapter the researcher had reviewed many researches done in India are carried out to assess the Effectiveness of Computer Assisted learning. Those were relevant to the present study. The research design is define as under.

“A research design is the arrangement of conditions for collection and analysis of data that aims to combine relevance to the research purpose with economy in procedure.”

Research design sketches out the entire research plan of sampling design, statistical design and operational design. It helps researcher to organize his ides with available time and money in a well-planned framework. As the researcher needs to visualize every step of the proposed research, which enable researcher to think over the problem, which may arise and make important decisions with regards to the method of sampling, the tools to be used and the kind of analysis to be done. Thus the research design is of paramount importance in any research, which provides motivation to researcher for moving ahead in right direction.

In this present chapter varies aspects of methodology of the present study like, population and sample, procedure for development of CAL, construction and validation of tools. Data collection and statistical analysis have been discussed.

3.2 Objectives of the Study

The research was carried out with the following objectives in focus.

- To study various Computer Assisted Learning (CAL) packages already prepared by experts with a view into preparation of CAL matriels

- To develop a Computer Assisted Learning (CAL) package for teaching English to pre-service teachers
- To implement the Computer Assisted Learning package for teaching English to the pre service teachers
- To enable pre service teachers to use English
- To study the effectiveness of the Computer Assisted Learning(CAL) package in terms of achievement of pre service teachers

3.3 Research Questions

The research was carried out with the following questions in focus.

- What are the benefits of a Computer Assisted Learning (CAL) package for teaching English to pre-service teachers ?
- What are the characteristics of an effective CAL package for ELT?
- How can a Computer Assisted Learning package for teaching English for Pre-service teachers be prepared ?
- How does technology enhance the effectiveness of teaching learning process?
- How can Educational Technology help the teacher to make the classroom interactive and lively ?

3.4 Methodology of Data Collection

Population: All the Gujarati medium B.Ed Colleges of the S.P.University, V.V.Nagar, for the academic year 2013-14 formed the population of the study.

3.5 Sample

One Gujarati medium B.Ed College, namely Shrimati P.K. Inamdar B.Ed. College, affiliated to the Sardar Patel University comprised the sample.

The method to select the sample was convenient sampling. The college was the nearest in terms of location.

3.6 Tools for Data Collection

Data are the major component of any research. So the tools and methods of collecting the data, too, are very important.

The following were the tools for data collection.

Pre-test and post test

A pre-test was administered prior to the experiment. This was based on the syllabus for English at the class 12 level.

A post-test was administered after the intervention, that is, the CAL package. This was a parallel test. Scores of both the tests were recorded.

Observation

During the intervention sessions the researcher had noted down his observations of the performance of student teachers.

Focus Group Discussion – this was conducted with the pre-service teachers who were also a part of the experiment.

3.7 Technique for Data Analysis

Statistical Technique was used to compare scores of pre-test and post-test.

Descriptive analysis was carried out of the observation and focused group discussions.

3.8 Population and Sampling

One Gujarati medium B.Ed Colleges of the S.P.University, V.V.Nagar, for the academic year 2013 14 form the population.

The sample for the present study was selected conveniently. One College namely Smt.P.K.Inamdar College of Education, Bakrol was selected as the sample institution for the purpose of the present study as it fulfilled the following requirements of the present study.

- A minimum of 18 computers with color monitors
- Networking of all computers
- Availability of windows media player as well as VLC media player
- Availability of Hot potatoes-6, windows media player and Google chrome and
- Easy access to the computer laboratory to pre-service teachers and the researcher.

Selection of pre-service teachers was done by cluster sampling.

Table 3.1 Sample of the Study

No	Name of college	Pre-test	Post-test	Total
1	Smt.P.K.Inamdar College of Education, Bakrol.	15	15	30

3.9 Delimitations of the Study

The study was delimited to English method of Gujarati Medium B.Ed College.

3.10 Construction of Tools

A pre-test and a post-test were prepared by the researcher and necessary modifications were made after discussions with experts. The following steps were followed in construction of the pre-test and post- test.

- I. The researcher had an informal discussion with some expert teacher educator and researchers in the field of English language and technology. The researcher also got some ideas from the dissertation done in this field/area.
- II. These tools were given to the experts who were associated with the English language for validation.

3.11 Data Collection

For data collection the researcher took permission from one college called Smt.P.K.Inamdar College of Education, Bakrol. The researcher took four classes establishing rapport with the pre-service teachers and understanding their needs.

Day-1, On the first day, researcher submitted permission letter to the I/C principal of the Smt.P.K.Inamdar College of Education, Bakrol. On that day the researcher observed the computer lab and gave the primary instructions to the pre-service teacher. Pre-test was also administered on this day.

Day-2, On the second day, the researcher took one hour for implementation for the CAL package. The focus was on discussion of Active and Passive Voice. He observed the responses of the pre-services teachers of English. From the first session itself the participants liked the programme and the package.

Day-3, On the third day, the researcher spent one more hour illustrating the Active-Passive voice further. More examples and practice were provided to the Pre-service try for exposure and experience. He also observed the responses of the students as well as their teacher educator regarding this CAL package.

Day-4, On the fourth day, the researcher's focus was on degrees of comparison. The comparative and superlative degrees were introduced through CAL.

Day-5, On the fifth day, further examples were provided on degrees of comparison. Exercises and tasks for practice were provided to the participants.

Day-6, On day six, more contextual presentations were made both on 'Voice' and 'Degrees of comparison'. Real life situations were also provided to enable the participants understand the concepts of voice and degrees of comparison in English. This session was more for consideration of the learning during previous sessions.

Day-7, On the last day the researcher administered the Post-test.